

On page 1, line 26, please insert new paragraph as follows:

--SUBMISSION ON COMPACT DISC

The contents of the following submission on compact discs are incorporated herein by reference in its entirety: A compact disc copy of the Sequence Listing (COPY 1) (file name: 2002420, date recorded: February 16, 2002, size: 569 KB); a duplicate compact disc copy of Sequence Listing (COPY 2) (file name: 2002420, date recorded: February 16, 2002, size: 569 KB); a computer readable form copy of the Sequence Listing (CRF COPY) (file name: 2002420, date recorded: February 16, 2002, size: 569 KB).--

In the Sequence Listing

Please insert the attached compact disc copy of the Sequence Listing on CD-R (COPY 1) in the above-captioned application. A duplicate compact disc copy of the Sequence Listing on CD-R (COPY 2) and a computer readable form copy of the Sequence Listing on CD-R (CRF COPY) accompany this response.

AMENDMENTS

In the Specification:

Please replace the paragraph beginning at page 7, line 21, with the following rewritten paragraph:

-- Figure 1. 101P3A11 SSH sequence (SEQ ID NO:2960). The 101P3A11 SSH sequence.--

Please replace the paragraph beginning at page 7, line 22, with the following rewritten paragraph:

-- Figures 2A-2D. The cDNA (SEQ ID. NO. :2961) and amino acid sequence (SEQ ID. NO. :2962) of 101P3A11. The start methionine is underlined. The open reading frame extends from nucleic acid 133 to 1086 including the stop codon (the codon for the initial M is omitted as the shorter peptide has a more favorable Kozak sequence).--

Please replace the paragraph beginning at page 7, line 26, with the following rewritten paragraph:

--Figure 3. Amino acid sequence of 101P3A11 (SEQ ID. NO. :piece of 2962). The 101P3A11 protein has 317 amino acids.--

Please replace the paragraph beginning at page 7, line 28, with the following rewritten paragraph:

--Figure 4. Alignment of 101P3A11 (Sbjct) (SEQ ID NO: 2964) with mouse olfactory receptor S25 (Query.) (SEQ ID NO: 2963) The transmembrane regions of 101P3A11 and mouse olfactory receptor S25 (ORS25)predicted using the TMHMM algorithm are highlighted in gray. The amino acids of ORS25 predicted (Floriano, W.B., et al, 2000, Proc. Natl. Acad. Sci., USA, 97:10712-10716) to be involved in binding of the ligand hexanol and/or involved in the formation of the ligand binding pocket are italicized and bolded in the Figure, and are: Leu 131, Val 134, Val 135, Gly 138, Thr139, Ser 193, Ser 197, Phe 225, Ala 230, Ile 231, Gly 234, Thr 284, Phe 287, Gln 300, Lys 302.--

Please replace the paragraph beginning at page 11, line 31, with the following rewritten paragraph:

--Figure 23. Alignment of 101P3A11-PHOR-1 (Phor) (SEQ ID NO: 2965) with the rat (SEQ ID NO: 2966) GPCR RA1C (gi|3420759). Identities = 179/299 (59%), Positives = 231/299 (76%), Gaps = 1/299 (0%).--

Please replace the paragraph beginning at page 12, line 1, with the following rewritten paragraph:

--Figure 24. Alignment of 101P3A11-PHOR-1 (Phor) (SEQ ID NO: 2967) with the human prostate specific GPCR (SEQ ID NO: 2968) (gi|13540539). Identities = 179/299 (59%), Positives = 233/299 (77%), Gaps = 1/299 (0%).--

Please replace the paragraph beginning at page 12, line 3, with the following rewritten paragraph:

--Figure 25. Alignment of 101P3A11-PHOR-1 (Phor) (SEQ ID NO: 2969) with human olfactory receptor 5II12, HOR5 (SEQ ID NO: 2970) (gi|14423836). Identities = 163/304 (53%), Positives = 214/304 (69%), Gaps = 1/304 (0%).--

Please replace the paragraph beginning at page 36, line 20, with the following rewritten paragraph:

--Also, different MHC class I molecules prefer a different length of ligands. For example, SYFPEITHI offers predictions for H2-Kb octamers, HLA-A*0201 nonamers and decamers, or HLA-B8 octamers and nonamers. The maximal scores vary between different MHC alleles. Therefore, one can include known ligands/epitopes in order to have an approximation of the scoring. For example, the maximal score for HLA-A*0201 peptides is 36. The well-known epitope GILGFVFTL (SEQ ID NO: 1401) derived from the influenza A matrix protein scores 30. All predicted MHC class II ligands are 15mers, consisting of three N-terminal flanking residues, the nonamer core sequence located within the binding groove, and three C-terminal flanking residues. Thus, anchor residue P1 appears in position 4 of the peptides predicted with "SYFPEITHI".--

Please replace the paragraph beginning at page 37, line 25, with the following rewritten paragraph:

--In an embodiment described in the examples that follow, 101P3A11 can be conveniently expressed in cells (such as 293T cells) transfected with a commercially available expression vector such as a CMV-driven expression vector encoding 101P3A11 with a C-terminal 6XHis (SEQ ID NO: 1402) and MYC tag (pcDNA3.1/mycHIS, Invitrogen or Tag5, GenHunter Corporation, Nashville TN). The Tag5 vector provides an IgGK secretion signal that can be used to facilitate the production of a secreted 101P3A11 protein in transfected cells. The secreted HIS-tagged 101P3A11 in the culture media can be purified, e.g., using a nickel column using standard techniques.--

Please replace the paragraph beginning at page 70, line 3, with the following rewritten paragraph:

--In certain embodiments, the T helper peptide is one that is recognized by T helper cells present in a majority of a genetically diverse population. This can be accomplished by selecting peptides that bind to many, most, or all of the HLA class II molecules. Examples of such amino acid bind many HLA Class II molecules include sequences from antigens such as tetanus toxoid at positions 830-843 (QYIKANSKFIGITE; (SEQ ID NO: 1403), *Plasmodium falciparum* circumsporozoite (CS) protein at positions 378-398 (DIEKKIAKMEKASSVFNVVNS; (SEQ ID NO: 1404), and *Streptococcus* 18kD protein at positions 116-131 (GAVDSILGGVATYGAA; (SEQ ID NO: 1405). Other examples include peptides bearing a DR 1-4-7 supermotif, or either of the DR3 motifs.--

Please replace the paragraph beginning at page 70, line 11, with the following rewritten paragraph:

--Alternatively, it is possible to prepare synthetic peptides capable of stimulating T helper lymphocytes, in a loosely HLA-restricted fashion, using amino acid sequences not found in nature (*see*, *e.g.*, PCT publication WO 95/07707). These synthetic compounds called Pan-DR-binding epitopes (*e.g.*, PADRE™, Epimmune, Inc., San Diego, CA) are designed to most preferably bind most HLA-DR (human HLA class II) molecules. For instance, a pan-DR-

binding epitope peptide having the formula: aKXVAAWTLKAAa (SEQ ID NO: 1406), where "X" is either cyclohexylalanine, phenylalanine, or tyrosine, and a is either D-alanine or L-alanine, has been found to bind to most HLA-DR alleles, and to stimulate the response of T helper lymphocytes from most individuals, regardless of their HLA type. An alternative of a pan-DR binding epitope comprises all "L" natural amino acids and can be provided in the form of nucleic acids that encode the epitope.--

Please replace the paragraph beginning at page 80, line 16, with the following rewritten paragraph:

--Single chain antibodies comprise the variable domains of the heavy and light chain joined by a flexible linker polypeptide, and are expressed as a single polypeptide. Optionally, single chain antibodies are expressed as a single chain variable region fragment joined to the light chain constant region. Well-known intracellular trafficking signals are engineered into recombinant polynucleotide vectors encoding such single chain antibodies in order to precisely target the intrabody to the desired intracellular compartment. For example, intrabodies targeted to the endoplasmic reticulum (ER) are engineered to incorporate a leader peptide and, optionally, a C-terminal ER retention signal, such as the KDEL (SEQ ID NO: 1407) amino acid motif. Intrabodies intended to exert activity in the nucleus are engineered to include a nuclear localization signal. Lipid moieties are joined to intrabodies in order to tether the intrabody to the cytosolic side of the plasma membrane. Intrabodies can also be targeted to exert function in the cytosol. For example, cytosolic intrabodies are used to sequester factors within the cytosol, thereby preventing them from being transported to their natural cellular destination.--

Please replace the paragraph beginning at page 86, line 29, with the following rewritten paragraph:

--pGEX Constructs: To generate recombinant 101P3A11 proteins in bacteria that are fused to the Glutathione S-transferase (GST) protein, all or parts of the 101P3A11 cDNA protein coding sequence are fused to the GST gene by cloning into pGEX-6P-1 or any other GST- fusion vector of the pGEX family (Amersham Pharmacia Biotech, Piscataway, NJ). These constructs allow controlled expression of recombinant 101P3A11 protein sequences with GST fused at the amino-terminus and a six histidine epitope (6X His) (SEQ ID NO: 1402) at the carboxyl-

terminus. The GST and 6X His tags permit purification of the recombinant fusion protein from induced bacteria with the appropriate affinity matrix and allow recognition of the fusion protein with anti-GST and anti-His antibodies. The 6X His tag (SEQ ID NO: 1402) is generated by adding 6 histidine (SEQ ID NO: 1402) codons to the cloning primer at the 3' end, e.g., of the open reading frame (ORF). A proteolytic cleavage site, such as the PreScissionTM recognition site in pGEX-6P-1, can be employed that permits cleavage of the GST tag from 101P3A11-related protein. The ampicillin resistance gene and pBR322 origin permit selection and maintenance of the pGEX plasmids in *E. coli*. In one embodiment, amino acids 86-317 are cloned into the pGEX-2T expression vector, the protein is expressed and purified.--

Please replace the paragraph beginning at page 87, line 8, with the following rewritten paragraph:

--pMAL Constructs: To generate, in bacteria, recombinant 101P3A11 proteins that are fused to maltose-binding protein (MBP), all or parts of the 101P3A11 cDNA protein coding sequence are fused to the MBP gene by cloning into the pMAL-c2X and pMAL-p2X vectors (New England Biolabs, Beverly, MA). These constructs allow controlled expression of recombinant 101P3A11 protein sequences with MBP fused at the amino-terminus and a 6X His (SEQ ID NO: 1402) epitope tag at the carboxyl-terminus. The MBP and 6X His tags (SEQ ID NO: 1402) permit purification of the recombinant protein from induced bacteria with the appropriate affinity matrix and allow recognition of the fusion protein with anti-MBP and anti-His antibodies. The 6X His (SEQ ID NO: 1402) epitope tag is generated by adding 6 histidine (SEQ ID NO: 1402) codons to the 3' cloning primer. A Factor Xa recognition site permits cleavage of the pMAL tag from 101P3A11. The pMAL-c2X and pMAL-p2X vectors are optimized to express the recombinant protein in the cytoplasm or periplasm respectively. Periplasm expression enhances folding of proteins with disulfide bonds. In one embodiment, amino acids 86-310 is cloned into the pMAL-c2X expression vector, the protein is expressed and purified.--

Please replace the paragraph beginning at page 87, line 20, with the following rewritten paragraph:

--pET Constructs: To express 101P3A11 in bacterial cells, all or parts of the 101P3A11 cDNA protein coding sequence are cloned into the pET family of vectors (Novagen, Madison, WI). These vectors allow tightly controlled expression of recombinant 101P3A11 protein in bacteria with and without fusion to proteins that enhance solubility, such as NusA and thioredoxin (Trx), and epitope tags, such as 6X His (SEQ ID NO: 1402) and S-Tag ™ that aid purification and detection of the recombinant protein. For example, constructs are made utilizing pET NusA fusion system 43.1 such that regions of the 101P3A11 protein are expressed as amino-terminal fusions to NusA.--

Please replace the paragraph beginning at page 88, line 19, with the following rewritten paragraph:

--pcDNA4/HisMax Constructs: To express 101P3A11 in mammalian cells, the 101P3A11 ORF was cloned into pcDNA4/HisMax Version A (Invitrogen, Carlsbad, CA). Protein expression is driven from the cytomegalovirus (CMV) promoter and the SP16 translational enhancer. The recombinant protein has XpressTM and six histidine (6X His) (SEQ ID NO: 1402) epitopes fused to the amino-terminus. The pcDNA4/HisMax vector also contains the bovine growth hormone (BGH) polyadenylation signal and transcription termination sequence to enhance mRNA stability along with the SV40 origin for episomal replication and simple vector rescue in cell lines expressing the large T antigen. The Zeocin resistance gene allows for selection of mammalian cells expressing the protein and the ampicillin resistance gene and ColE1 origin permits selection and maintenance of the plasmid in *E. coli*.--

Please replace the paragraph beginning at page 88, line 28, with the following rewritten paragraph:

--pcDNA3.1/MycHis Constructs: To express 101P3A11 in mammalian cells, the 101P3A11 ORF, with a consensus Kozak translation initiation site, was cloned into pcDNA3.1/MycHis Version A (Invitrogen, Carlsbad, CA). Protein expression is driven from the cytomegalovirus (CMV) promoter. The recombinant proteins have the myc epitope and 6X His (SEQ ID NO: 1402) epitope fused to the carboxyl-terminus. The pcDNA3.1/MycHis vector also contains the bovine growth hormone (BGH) polyadenylation signal and transcription termination sequence to enhance mRNA stability, along with the SV40 origin for episomal replication and

simple vector rescue in cell lines expressing the large T antigen. The Neomycin resistance gene can be used, as it allows for selection of mammalian cells expressing the protein and the ampicillin resistance gene and ColE1 origin permits selection and maintenance of the plasmid in *E. coli.*--

Please replace the paragraph beginning at page 89, line 16, with the following rewritten paragraph:

--PAPtag: The 101P3A11 ORF, or portions thereof, of 101P3A11 are cloned into pAPtag-5 (GenHunter Corp. Nashville, TN). This construct generates an alkaline phosphatase fusion at the carboxyl-terminus of the 101P3A11 proteins while fusing the IgGκ signal sequence to the amino-terminus. Constructs are also generated in which alkaline phosphatase with an amino-terminal IgGκ signal sequence is fused to the amino-terminus of 101P3A11 proteins. The resulting recombinant 101P3A11 proteins are optimized for secretion into the media of transfected mammalian cells and can be used to identify proteins such as ligands or receptors that interact with the 101P3A11 proteins. Protein expression is driven from the CMV promoter and the recombinant proteins also contain myc and 6X His (SEQ ID NO: 1402) epitopes fused at the carboxyl-terminus that facilitates detection and purification. The Zeocin resistance gene present in the vector allows for selection of mammalian cells expressing the recombinant protein and the ampicillin resistance gene permits selection of the plasmid in *E. coli.*--

Please replace the paragraph beginning at page 89, line 27, with the following rewritten paragraph:

--ptag5: The 101P3A11 ORF, or portions thereof, of 101P3A11 are cloned into pTag-5. This vector is similar to pAPtag but without the alkaline phosphatase fusion. This construct generated 101P3A11 protein with an amino-terminal IgGκ signal sequence and myc and 6X His (SEQ ID NO: 1402) epitope tags at the carboxyl-terminus that facilitate detection and affinity purification. The resulting recombinant 101P3A11 protein was optimized for secretion into the media of transfected mammalian cells, and was used as immunogen or ligand to identify proteins such as ligands or receptors that interact with the 101P3A11 proteins. Protein expression is driven from the CMV promoter. The Zeocin resistance gene present in the vector allows for

selection of mammalian cells expressing the protein, and the ampicillin resistance gene permits selection of the plasmid in *E. coli.*--

Please replace the paragraph beginning at page 90, line 30, with the following rewritten paragraph:

--Additional pSRα constructs are made that fuse an epitope tag such as the FLAGTM tag to the carboxyl-terminus of 101P3A11 sequences to allow detection using anti-Flag antibodies. For example, the FLAGTM sequence 5' gat tac aag gat gac gac gat aag 3' (SEQ ID NO: 1408) is added to cloning primer at the 3' end of the ORF. Additional pSRα constructs are made to produce both amino-terminal and carboxyl-terminal GFP and myc/6X His (SEQ ID NO: 1402) fusion proteins of the full-length 101P3A11 proteins.--

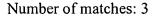
Please replace the paragraph beginning at page 141, line 31, with the following rewritten paragraph:

--The generation of anti-101P3A11 polyclonal Ab (pAb) using an amino-terminal peptide encoding amino acids 1-14 (MVDPNGNESSATYF; (SEQ ID NO: 1409) as antigen was reported in our Priority Application. The effect of this antibody on 101P3A11 mediated ERK phosphorylation (Figure 38) and cAMP accumulation (Figure 39) was determined. 293T cells were transfected with control or 101P3A11 cDNA. Cells were allowed to rest overnight, and treated with anti-101P3A11 or control Ab in the presence of 0.5% or 10% FBS. Cells were lysed and analyzed by Western blotting with anti-Phospho-ERK and anti-ERK mAb. Figure 38 shows that expression of 101P3A11 induces ERK phosphorylation in cells treated with 0.5 or 10% FBS. Anti-101P3A11 pAb reduced the phosphorylation of ERK in 293T-101P3A11 cells treated with 0.5% FBS. The ERK overlay demonstrated equal loading, supporting the specificity of this data.--

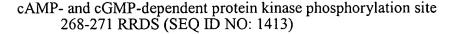
Please replace Table XIX, beginning at page 186, with the following rewritten Table XIX:

-- Table XIX: Motifs and Post-translational Modifications of 101P3A11

N-glycosylation site



- 1 7-10 NESS (SEQ ID NO: 1410)
- 2 44-47 NLTI (SEQ ID NO: 1411)
- 3 90-93 NSTT (SEQ ID NO: 1412)



Protein kinase C phosphorylation site 266-268 SKR

Casein kinase II phosphorylation site Number of matches: 3

- 1 56-59 SLHE (SEQ ID NO: 1414)
- 2 69-72 SGID (SEQ ID NO: 1415)
- 3 110-113 SGME (SEQ ID NO: 1416)

N-myristoylation site Number of matches: 4

- 1 6-11 GNESSA (SEQ ID NO: 1417)
 - 2 21-26 GLEEAQ (SEQ ID NO: 1418)
- 3 111-116 GMESTV (SEQ ID NO: 1419)
- 4 240-245 GTCVSH (SEQ ID NO: 1420)

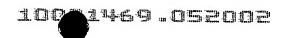
G-protein coupled receptors family 1 signature

112-128 MESTVLLAMAFDRYVAI (SEQ ID NO: 1421)--

Please replace Table XXI, beginning at page 190, line 1, with the following rewritten Table XXI:

--Table XXI: Nucleotide sequence of the splice variant (SEQ ID NO: 1422)

1	CACATTCCTT	CCATACGGTT	GAGCCTCTAC	CTGCCTGGTG	CTGGTCACAG	TTCAGCTTCT
61	TCATGATGGT	GGATCCCAAT	GGCAATGAAT	CCAGTGCTAC	ATACTTCATC	CTAATAGGCC
121	TCCCTGGTTT	AGAAGAGGCT	CAGTTCTGGT	TGGCCTCCCA	TTGTGCTCCC	TCTANCTATG
181	CTGTGCTAGT	AATTGACAAT	CATCTACATG	TGCGGACGAG	CACGNCGCNG	AGCCCNGTAT
241	NATTCTGCNG	CTTCAGCATG	ACACCCTNCA	GTCTCAGCCA	AAGNGCATCT	CNGTCAATCA
301	NACACNTGAG	CTGTCGTACG	AGTTGCATCA	TCCTANGGCA	GGATCAATGT	GCGGNAGGCN
361	TGACGCAGTG	CACGTACCAT	GGCAGCAAGA	CAGGGCCGGT	ACAAATGGGG	GCGAGNCGGG
421	GTGAAGATGN	ACCCTCGGGT	CANAGAGTGC	CTCTGCGCCA	AAACCTCCAT	CATGNNAACA
481	GNGTATAACG	GCGNAGAATC	GGNNANGCGC	AAGGCTAAGG	AAANNCCCAA	NNCNGGTACT
541	TTAACCCNGC	AAANGGCANC	NAAACGGGNG	GGTNANTGAA	CAAGGAAGGN	NTGNAACTGG
601	GCCAAAACGG	GNTGGGCAAN	NNAAGGACTC	ATGGGNCCAA	GGGACGGNAA	AAGGGGNAAN
661	CGGGGCGAAA	TGNNAAAAAC	CGGGNCCCGG	GGAANAANGA	AGGGGAANAN	GNGTGAAGGA
721	CNGGGTTCAA	GGGAAAAGNA	AAACCANGGG	NNAGAAACCN	TTCNAANGGC	CCGGGNANGA



- 781 AAGGAANTNN GNNNGGNGAA AAAATCNAAA AAAAGCNGNG GCNNAAAAAN GGGGGGAANN
- 841 NAAANACCNN GGNCGNNAAA AAACNNAANG NGGGGGGANT ANACACGGAA ANNNANGGGC
- 901 GNNNAAGGGA AATAANNCGG GAACNAAAGN GCAAACCGNA CGGNAGGAAC GAAACCCACC
- 961 GGAGNCGCNN AACGCCNNNC NNANCCCGAG CNGAGGTNG--

Please replace Table XXII, beginning at page 190, line 38, with the following rewritten Table XXII:

-- Table XXII: Nucleotide sequence alignment of 101P3A11 with the splice variant.

Score = 337 bits (175), Expect = 4e-89

Identities = 215/223 (96%), Gaps = 6/223 (2%)

Strand = Plus / Plus

101P3A11: 68 cacattccttccatacggttgagcctctacctgcctggtgctggtcacagttcagcttct 127

(SEQ ID NO: 1423)

Variant: 1 cacattecttecataeggttgageetetacetgeetggtgetggteaeagtteagettet 60

(SEQ ID NO: 1424)

101P3A11: 128 tcatgatggtggatcccaatggcaatgaatccagtgctacatacttcatcctaataggcc 187

Variant : 61 tcatgatggtggatcccaatggcaatgaatccagtgctacatacttcatcctaataggcc 120

variance. Vi coatgatggtggateceaatggcaatgaatecagtgetacatactecatactggcc 120

101P3A11: 188 tccctggtttagaagaggctcagttctggttggccttcccattgtgctccctctacctta 247

101P3A11: 248 ttgctgtgctaggtaacttgacaatcatctacattgtgcggac 290

Variant: 178 atgctgtgcta-gtaa-ttgacaatcatctaca-tgtgcggac 217--

Please replace Table XXIII, beginning at page 191, line 8, with the following rewritten Table XXIII:

-- Table XXIII: Longest single amino acid sequence alignment of 101P3A11 and the splice variant.

Score = 134 bits (287), Expect (2) = 3e-29

Identities = 51/51 (100%)

Frame = +1 / +3

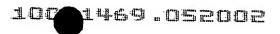
101P3A11: 70 HSFHTVEPLPAWCWSQFSFFMMVDPNGNESSATYFILIGLPGLEEAQFWLA 222

(SEQ ID NO: 1425)

 ${\tt HSFHTVEPLPAWCWSQFSFFMMVDPNGNESSATYFILIGLPGLEEAQFWLA}$

Variant : 3 HSFHTVEPLPAWCWSQFSFFMMVDPNGNESSATYFILIGLPGLEEAQFWLA 155

(SEO ID NO: 1426) --



Please replace Table XXIV, beginning at page 191, line 16, with the following rewritten Table XXIV:

-- Table XXIV: Peptide sequences from the translation of the nucleotide sequence of the splice variant .

Open reading	Amino acid sequences
frame	
Frame 1 (SEQ ID	HIPSIRLSLYLPGAGHSSASS*WWIPMAMNPVLHTSS**ASLV*KRLSSGWPPIVLPLXM
NO: 1427)	LC**LTIIYMCGRARRXAXYXSAASA*HPXVSAKXHLXQSXT*AVVRVASSXGRINVRXA
	*RSARTMAARQGRYKWGRXGVKMXPRVXECLCAKTSIMXTXYNGXESXXRKAKEXPXXGT
•	LTXQXAXKRXGX*TRKXXNWAKTGWAXXGLMGPRDGKRGXRGEMXKTGXRGXXKGXXXEG
	XGSREKXNXGXETXXXARXXKEXXXXKKSKKSXGXKXGGXXXPXXXKNXXXGXXTRKXXG
	XXGK*XGNXXANRTXGTKPTGXAXRXXXPEXRX
Frame 2(SEQ ID	TFLPYG*ASTCLVLVTVQLLHDGGSQWQ*IQCYILHPNRPPWFRRGSVLVGLPLCSLXLC
NO: 1428)	CASN*QSSTCADEHXAEPXXILXLQHDTLQSQPKXISVNXTXELSYELHHPXAGSMCGRX
	DAVHVPWQQDRAGTNGGEXG*RXTLGSXSASAPKPPSXXQXITAXNRXXARLRKXPXXVL
	*PXKXXXNGXVXEQGRXXTGPKRXGQXKDSWXQGTXKGXXGAKXXKPGPGEXXRGXXVKD
	XVQGKXKTXGXKPFXXPGXERXXXXXKNXKKAXAXKXGEXKXXGRXKTXXGGXXHGXXXA
	XKGNXXGTKXQTXRXERNPPEXXNAXXXPSXG
Frame 3 (SEQ ID	HSFHTVEPLPAWCWSQFSFFMMVDPNGNESSATYFILIGLPGLEEAQFWLASHCAPSXYA
NO: 1429)	VLVIDNHLHVRTSTXXSPVXFCXFSMTPXSLSQXASXSIXHXSCRTSCIILXQDQCAXGX
	TQCTYHGSKTGPVQMGAXRGEDXPSGXRVPLRQNLHHXNXV*RRRIGXAQG*GXXQXXYF
,	NPAXGXXTGGXXNKEGXXLGQNGXGXXRTHGXKGRXKGXXGRNXKNRXPGXXEGEXX*RT
	GFKGKXKPXXRNXSXGPGXKGXXXGEKIXKKXXXKXGGXXXTXXXKKXXXGGXXTEXXGR
	XREIXREXKXKPXGRNETHRXRXTPXXXRAEV

Note: Frame 3 gives the longest subsequence that is identical with 101P3All amino acid sequence. In this Table each (*)indicates the product of a single stop codon, and 'X' indicates a single unknown amino acid.--

Please replace Table XXVI, beginning at page 193, line 1, with the following rewritten Table XXVI:

--Table XXVI:

HLA Class I Nonamers (SEQ ID NOS 1430-1462, respectively in order of appearance)

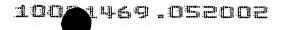
	HLA-A1	nonomers											
	Pos	1	2	3	4	5	6	7	8	9	score		
1	245	Н	\underline{v}	C	Α	V	F	Ī	F	Y	24		
2	29	L	A	F	P	L	C	<u>s</u>	L	Y	21		
3	41	V	Ŀ	G	N	L	T	I	I	Y	21		
4	285	P	<u>P</u>	V	L	N	P	I	V	Y	20		
5	111	G	\underline{M}	E	s	T	V	$\underline{\mathtt{r}}$	L	A	19		
6	117	L	$\overline{\mathbf{r}}$	A	M	A	F	$\overline{\mathbf{D}}$	R	Y	19		
7	172	R	<u>s</u>	N	Ι	L	s	$\underline{\mathbf{H}}$	s	Y	19		
8	192	D	$\underline{\mathtt{D}}$	I	R	V	N	$\underline{\mathtt{v}}$	V	Y	19		
9	212	D	s	L	Ļ	I	s	<u>F</u>	s	Y	19		
10	57	L	H	E	P	М	Y	Ī	F	L	18		
11	22	L	$\underline{\mathbf{E}}$	E	Α	Q	F	W	L	A	17		
12	9	s	<u>s</u>	A	Т	Y	F	$\underline{\mathtt{I}}$	L	I	16		
13	52	R	$\underline{\mathbf{T}}$	E	Н	s	L	<u>H</u>	E	P	16		

HLA-Al nonomers

Pos 1 2 3 4 5 6 7 8 9 score 54 EHSLHEPMY 14 16 15 78 SSMPKMLAI 95 QFDACLLQI 16 16 17 159 A P L P V F I K Q 16 183 HQDVMKLAC 18 16 1 MVDPNGNES 15 19 5 NGNESSATY 20 15 21 210 G \underline{L} D S L L \underline{I} S F15 22 273 L P V I L A N I Y 15 23 271 S P L P V I L A N 14 91 STTIQFDAC 13 24 121 AFDRYVAIC 25 13 26 138 LTLPRVTKI 13 27 218 F S Y L L I L K T 13 28 282 L L V P P V L N P 13 29 190 ACDDIRVNV 12 191 CDDIRVNVV 12 30 231 TREAQAKAF 31 12 32 268 R R D S P L P V I 12 270 D S P L P V I L A 12 33

HLA-A*0201 nonomers (SEQ ID NOS 1463-1569, respectively in order of appearance)

	Pos	1 2	2 3	4	5	6	7	8	9	score
1	287	V I					Ÿ		v	. 30
2	14	F	L	I	G	Ŀ			L	29
3	28	WI	A	F					L	28
4	37	Y I				Ē			L	28
5	222	L	L	K	T	<u>v</u>	L	G	L	28
6	66	CI	1 L	S	G	<u>I</u>	D	I	L	26
7	108	SI	s	G	M	Ē	s	Т	V	26
8	181	CI	Н	Q	D	\underline{v}	M	K	L	26
9	201	G I	·I	V	I	I	s	A	I	26
10	214	LI	I	S	F	<u>s</u>	Y	L	L	26
11	275	V I	L	A	N	<u>I</u>	Y	L	L	26
12	157	LI	ſΑ	P	L	<u>P</u>	V	F	I	25
13	220	ΥI	L	I	L	K	T	V	L	25
14	276	. I 1	A	N	I	<u>Y</u>	L	L	v	25
15	279	N	Y	L	L	\underline{v}	P	P	V	25
16	138	L :	. r	P	R	$\overline{\Lambda}$	T	K	I	24.
17	213	SI	L	I	S	$\underline{\mathbf{F}}$	S	Y	L	24
18	49	Y	v	R	T	E	Н	S	L	23
19	143	V	K	I	G	\underline{v}	A	A	٧	23
20	188	ΚI	A	С	D	$\overline{\mathbf{D}}$	Ι	R	V	23
21	198	V V	7 Y	G	L	Ī	V	I	I	23
22	21	G I	E	Ė	A	Q	F	W	L	22
23	40	A V	L	G	N	$\overline{\mathbf{r}}$	T	I	I	22
24	206	IS	S A	I	G	$\overline{\mathbf{r}}$	D	S	L	22
25	11	A T				_	I		L	21
26	60	P	ſ Y	I	F	$\overline{\Gamma}$	С	M	L	21
										14



HLA-A*0201 nonomers(SEQ ID NOS 1463-1569, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
27	135	A	T	3 V	4 L	o T	L	P	o R	v	21
28	160	P	L	P	V	F	I	K	Q N	L	21
29	174	N	I	L	s	Н	s	Y	C	L	21
30	207	S	A	I	G	L	D D	S	Ь	L	. 21
31	272	P	L	P	V	I	r F	A	N	I	21
			v	P	P		_	N	P	ı	21
32	283	L	L	S		V I	r T		L	I	
33	67	M		I	G		₽	I		L	20
34	101	L	Q		F	A	I	H	S		20
35	282	L	L	V	P	Þ	Ā	L	N	P	20
36	299	E	I	R	Q	R	Ī	L	R	L	. 20
37	304	I	L	R	L	F	H	V	A	T	20
38	39	I	A	V	L	G	<u>N</u>	L	T	I	19
39	45	L	T	I	I	Y	Ī	V	R	T	19
40	92	Т	T	Ι	Q	F	D	A	C	L	19
41	110	S	G	M	E	s	<u>T</u>	V	L	L	19
42	127	A	I	С	Н	P	Ī	R	H	A	19
43	132	L	R	Н	A	T	<u>v</u>	Ŀ	T	L	19
44	149	Α	A	V	V	R	G	A	A	L	19
45	155	A	A	L	M	A	<u>P</u>	L	P	v	19
46	156	Α	L	M	A	P	Ī	P	V	F	19
47	203	I	v	I	I	s	<u>A</u>	I	G	L	19
48	208	Α	I	G	L	D	<u>s</u>	L	L	I	19
49	216	I	S	F	S	Y	<u>r</u>	L	I	L	19
50	219	S	Y	L	L	I	$\overline{\Gamma}$	K	T	V	19
51	221	L	L	I	L	K	$\frac{\mathbf{T}}{}$	V	L	G	19
52	223	I	L	K	Т	V	$\overline{\mathbf{r}}$	G	L	Т	19
53	17	I	G	L	P	G	Ī	E	E	A	18
54	33	L	C	S	L	Y	$\overline{\Gamma}$	I	Α	V	18
55	34	C	S	L	Y	L	Ī	Α	V	L	18
56	38	L	I	A	V	L	G	N	L	T	18
57	43	G	N	L	Т	I	Ī	Y	I	v	18
58	85	A	I	F	W	F	N	S	Т	T	18
59	118	L	A	M	A	F	₽	R	Y	v	18
60	194	I	R	v	N	V	v	Y	G	L	18
61	210	G -	L	D	s	L	<u>r</u>	I	s	F	18
62	215				F		<u>Y</u>	L	L	I	18
63	246		C		V		Ī	F	Y		18
64	254		P	F	I	G	<u>r</u>	S	M	v	18
65	15	I	L	I	G	L	<u>P</u>	G	L	E	17
66	63	I	F	L		M		S	G	I	17
67	72	D	I	L	I	s	T	S	s	M	17
68	93	T			F	D		C	L	L	17
69	98		C	L		Q	Ī	F		I	17
70	111		M	Ε	S	Т	<u>v</u>	L	L	A	17
71	120		A	F	D	R	<u>Y</u>	V		I	17
72	167	Q	L	P	F	C	<u>R</u>	s	N	I	17
73	197				Y	G	<u>r</u>	I			17
74	226		v		G		_	R	E	A	. 17
75	281	Y	L	L	V	Р	<u>P</u>	V	L	N	17
											15

HLA-A*0201 nonomers(SEQ ID NOS 1463-1569, respectively in order of appearance)

	_										
	Pos	1	2	3	4	5	6	.7	8	9	score
76	31	F	P	L	С	S	Ē	Y	L	I	16
77	56	s	L	Н	E	P	M	Y	I	F	16
78	70	G	I	D	I	L	Ī	S	Т	S	16
79	78	s	S	M	P	K	M	L	A	I	16
80	79	s	M	P	K	M	$\overline{\mathbf{r}}$	Α	I	F	16
81	104	F	A	I	Н	S	Ŀ	S	G	M	16
82	119	Α	M	Α	F	D	$\underline{\mathbf{R}}$	Y	V	A	16
83	144	Т	K	Ι	G	V	<u>A</u>	A	V	v	16
84	147	G	V	Α	A	V	\underline{v}	R	G	A	16
85	186	v	M	K	Ĺ	Ā	<u>c</u>	D	D	I	16
86	230	L	T	R	E	A	\underline{Q}	A	K	A	16
87	238	A	F	G	T	С	$\underline{\mathtt{v}}$	s	Н	V	16
88	249	V	F	Ι	F	Y	$\underline{\mathtt{v}}$	P	F	I	16
89	302	Q	R	Ι	L	R	$\overline{\overline{r}}$	F	Н	V	16
90	303	R	I	L	R	L	F	H	V	A	16
91	18	G	L	Р	G	L	E	E	Α	Q	15
92	35	S	L	Y	L	I	$\underline{\underline{\mathbf{A}}}$	V	L	G	15
93	42	L	G	N	L	T	Ī	I	Y	I	15
94	46	T	I	Ι	Y	Ι	$\overline{\Lambda}$	R	T	E	15
95	69	S	G	Ι	D	I	Ē	I	S	T	15
96	76	S	T	S	S	M	$\underline{\mathtt{P}}$	K	M	L	15
97	131	P	L	R	H	A	$\underline{\underline{\mathtt{T}}}$	V	L	T	15
98	137	V	L	Т	L	P	\underline{R}	V	T	K	15
99	153	R	G	Α	Α	L	\underline{M}	A	P	L	15
100	190	Α	C	D	D	I	<u>R</u>	V	N	V	15
101	191	С	D	D	I	R	<u>v</u>	N	V	V	15
102	204	V	I	I	S	A	Ī	G	L	D	15
103	241	Т	C	V	S	Н	<u>v</u>	С	Α	V	15
104	251	I	F	Y	V	P	<u>F</u>	Ι	G	L	. 15
105	269	R	D	S	P	L	<u>P</u>	V	Ι	L	15
106	280	I	Y	L	L	V	$\underline{\mathbf{p}}$	P	V	L	15
107	306	R	L	F	Н	V	Α	Т	Н	Α	15

HLA A*0203 nonomers (SEQ ID NOS 1570-1594, respectively in order of appearance)

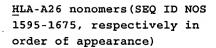
	Pos	1	2	3	4	5	6	7	8	9	score
1	148	V	A	A	v	v	R	G	Α	A	14
2	119	A	M	A	F	D	R	<u>Y</u>	V	A	13
3	147	G	\underline{v}	A	Α	V	V	$\underline{\mathtt{R}}$	G	A	12
4	97	D	A	C	L	L	Q	Ī	F	A	11
5	127	A	Ī	C	Н	P	L	R	Н	A	10
6	3	D	<u>P</u>	N	G	N	E	<u>s</u>	s	A	9
7	17	I	G	L	P	G	L	E	E	A	9
8	22	L	E	E	Α	Q	F	\underline{W}	L	A	9
9	32	P	$\overline{\mathbf{r}}$	C	S	L	Y	$\underline{\mathbf{L}}$	I	A	9
10	77	T	<u>s</u>	S	М	P	K	\underline{M}	L	A	9
11	90	N	s	T	T	I	Q	<u>F</u>	D	A	9
											16

Serial No. 10/001,469 Docket No. 511582002420 HLA A*0203 nonomers (SEQ ID NOS 1570-1594, respectively in order of appearance)

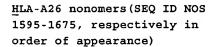
	Pos	1	2	3	4	5	6	7	8	9	score
12	111	G	M	E	s	T	v	Ē	L	A	9
13	113	Е	<u>s</u>	T	V	L	L	A	М	A	9
14	141	P	R	v	Т	K	I	\underline{G}	V	A	9
15	142	R	\underline{v}	T	K	I	G	$\underline{\mathtt{v}}$	Α	A	9
16	151	V	\underline{v}	R	G	A	A	$\overline{\mathbf{r}}$	M	A	9
17	182	L	H	Q	D	V	M	K	L	A	9
18	200	Y	\underline{G}	L	I	V	I	I	s	A	. 9
19	226	T	$\underline{\mathtt{v}}$	L	G	L	T	<u>R</u>	Ė	A	9
20	228	L	\underline{G}	L	T	R	Ε	<u>A</u>	Q	A	9
21	230	L	Ţ	R	Ε	A	Q	A	K	A	9
22	240	G	$\underline{\mathtt{T}}$	C	٧	s	Н	\underline{v}	С	A	9
23	270	Ď	<u>s</u>	P	L	P	V	Ī	L	A	9
24	303	R	I	L	R	L	F	$\underline{\mathbf{H}}$	V	A	9
25	306	R	$\underline{\mathbf{L}}$	F	Н	V	Α	$\underline{\mathtt{T}}$	Н	A	9

HLA-A26 nonomers (SEQ ID NOS 1595-1675, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
1	299	E	I	R	0	R	I	Ĺ	R	L	30
2	72	D	I	L	I	s	Т	s	s	м	27
3	248	A	v	F	I	F	Y	v	P	F	27
4	210	G	L	D	s	L	L	I	s	F	.26
5	14	F	I	L	I	G	L	P	G	L	24
6	56	s	L	Н	E	P	M.		Ī	F	24
7	117	L	L	A	М	A	F	D	R	Y	24
8	222	L	I	L	ĸ	Т	v	L	G	L	24
9	245	H	v	C	A	v	F	I	F	Y	24
10	11	A	Т	Y	F	I	L	I	G	L	23
11	37	Y	L	I	Ā	v	L	G	N	L	23
12	114	S	Т	v	L	L	Α	М	Α	F	23
13	156	Α	L	М	Α	P	L	Р	v	F	23
14	162	·P	v	ŕ	I	K	Q	L	P	F	23
15	181	С	L	Н	Q	D	v	M	ĸ	L	23
16	28	W	L	Α	F	P	L	С	s	L	22
17	92	Т	Т	I	Q	F	D	Α	С	Ļ	22
18	160	P	L	P	V	F	I	K	Q	L	22
19	203	I	v	I	I	s	Α	I	G	L	22
20	213	s	L	Ĺ	I	s	F	s	Y	L	22
21	275	v	I	L	Α	N	I	Y	L	L	22
22	193	D	I	R	V	N	V	V	Y	G	21
23	242	С	٧	s	Н	٧	С	Α	٧	F	21
24	76	S	T	s	s	M	P	K	М	L	20
25	253	Y	V	P	F	I	G	L	s	M	20
26	274	P	V	I	L	Α	.N	I	Y	L	20
27	23	E	E	Α	Q	F	W	L	Α	F	19
28	41	V	L	G	· N	L	T	I	I	Y	19
29	49	Y	I	V	R	T	E	Н	s	L	19
											17



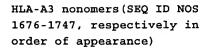
	Pos	1	2	3	4	5	_	7	8	9	score
30	150	1 A	V	V	4 R	G	6 A	7 A	8 L	Э М	19
31	174	N	I		S	Н	S	Y	С		19
				L						L	
32	192	D	D	I	R	V	N	V	V	Y	19
33	214	L	Г	I	S	F	S	Y	L	L	19
34	251	I	F	Y	V	P	F	Ι	G	L	19
35	8	E	S	s	A	T	Y	F	Ι	L	18
36	21	G	L	Ė	Ė	A	Q	F	M.		18
37	45	L	Т	Ι	I	Y	Ι	V	R	Т	18
38	54	E	Н	S	L	Н	Ε	Ρ	M	Y	18
39	59	E	P	M	Y	Ι	F	L	С	M	18
40	88	W	F	N	S	T	T	I	Q	F	18
41	93	T	Ι	Q	F	D	Α	С	L	Ļ	18
42	185	D	V	M	K	L	Α	С	D	D	18
43	198	V	V	Y	G	L	Ι	V	Ι	Ι	. 18
44	62	Y	Ι	F	L	С	M	L	S	G	17
45	70	G	Ι	D	I	L	I	S	T	S	17
46	79	S	M	P	K	M	L	A	I	F	17
47	96	F	D	Α	С	L	L	Q	I	F	17
48	104	F	Α	I	Н	S	L	S	G	M	17
49	138	L	Т	L	P	R	V	T	K	I	17
50	143	v	Т	K	I	G	V	Α	Α	V	17
51	204	v	Ι	I	S	Α	I	G	L	D	17
52	212	D	s	L	L	I	s	F	s	Y	17
53	220	Y	L	L	I	L	K	Т	v	L	17
54	256	F	Ι	G	L	s	М	v	Н	R	17
55	283	L	٧	P	P	٧	L	N	P	Ι	17
56	29	L	Α	F	P	L	С	s	L	Y	16
57	40	Α	v	L	G	N	L	Т	I	I	16
58	46	Т	Ι	I	Y	I	V	R	Т	Ε	16
59	52	R	Т	E	Н	s	L	Н	E	P	16
60	75	I	s	т	s	s	М	Р	K	М	16
61	91	s	Т	т	I	Q	F	D	Α	С	16
62	135	Α	т	v	L	T	L	P	R	v	16
63	147	G	v	Α	Α	v	v	R	G	A	16
64	201	G	L	I	v	I	I	s	Α	I	16
65	257	I	G	L		М	v	Н	R	F	16
66	279	N	I	Y	L	L	v			v	16
67	30	А	F	P	L	C	s	L	Y	L	15
68	101		Q	I	F	A	I	Н	s	L	15
69	115	T	v	L	L	A		A	F	D	15
70	127	A	I	C	Н	P	L	R	Н	A	15
71	153	R	G			L	М	A	P	L	15
72	163	V	F	I	K	Õ	L	P	F	C	15
73	215	L	I	s	F	s	Y	L	L	I	15
73 74	216	I	S	F	s	Y	L	Г	I	L	15
75	225	K		r V	L	G	r	T	R		15
		P	L		Λ Γ					E	
76	272			P		I		A	N	I	15 15
77	282	L		V		P	V		N	P	15
78	286	P	٧	ц	N	P	T	V	Y	G	15



	Pos	1	2	3	4	5	6	7	8	9	score
79	287	V	L	N	Р	I	V	Y	G	V	15
80	296	K	Т	K	E	Ι	R	Q	R	Ι	15
81	303	R	I	L	R	L	F	Н	V	Α	15

HLA-A3 nonomers (SEQ ID NOS 1676-1747, respectively in order of appearance)

	Pos										score
		1	2	3	4	5	6	7	8	9	
1	137	V	L	$\underline{\mathbf{T}}$	L	P	<u>R</u>	$\overline{\Lambda}$	Т	K	30
2	229	G	L	<u>T</u>	R	Ε	<u>A</u>	Q	A	K	27
3	145	K	Ι	\underline{G}	V	A	<u>A</u>	$\overline{\Lambda}$	V	R	26
4	150	Α	V	<u>v</u>	R	G	<u>A</u>	<u>A</u>	L	M	24
5	290	P	I	<u>v</u>	Y	G	<u>v</u>	<u>K</u>	T	K	24
6	35	S	L	<u>Y</u>	L	Ι	<u>A</u>	$\overline{\Lambda}$	L	G	23
7	156	Α	L	M	A	P	$\overline{\mathbf{r}}$	<u>P</u>	V	F	23
8	47	I	I	<u>Y</u>	Ι	V	<u>R</u>	$\underline{\mathbf{T}}$	Ε	H	22
9	50	I	V	<u>R</u>	Т	Ε	<u>H</u>	<u>s</u>	L	H	22
10	142	R	V	$\underline{\underline{\mathbf{T}}}$	K	Ι	\underline{G}	<u>v</u>	A	A	22
11	151	V	V	<u>R</u>	G	A	<u>A</u>	$\overline{\mathbf{r}}$	M	A	22
12	242	С	V	<u>s</u>	Н	V	<u>C</u>	<u>A</u>	V	F	22
13	248	Α	V	$\underline{\mathbf{F}}$	I	F	$\underline{\mathtt{Y}}$	$\overline{\Lambda}$	P	F	22
14	116	V	L	$\underline{\mathtt{r}}$	A	M	$\underline{\underline{\mathbf{A}}}$	<u>F</u>	D	R	21
15	192	D	D	Ī	R	٧	\overline{N}	$\underline{\mathtt{v}}$	V	Y	21
16	303	R	I	$\underline{\mathbf{r}}$	R	L	$\underline{\mathbf{F}}$	$\underline{\mathbf{H}}$	V	A	21
17	304	I	L	$\underline{\underline{R}}$	L	F	$\underline{\mathbf{H}}$	$\overline{\Lambda}$	Α	T	21
18	108	S	L	<u>s</u>	G	M	Ē	<u>s</u>	T	V	20
19	198	v	v	<u>Y</u>	G	L	I	$\underline{\mathtt{v}}$	I	I	20
20	291	I	v	$\underline{\mathtt{Y}}$	G	V	<u>K</u>	$\underline{\mathbf{T}}$	K	E	20
21	15	I	L	Ī	G	L	<u>P</u>	\underline{G}	L	E	19
22	44	N	L	$\underline{\mathtt{T}}$	I	I	<u>Y</u>	I	٧	R	19
23	73	I	L	Ī	s	T	<u>s</u>	<u>s</u>	M	P	19
24	74	L	I	$\underline{\underline{s}}$	T	s	$\underline{\underline{s}}$	$\underline{\underline{M}}$	P	K	19
25	99	C	L	$\underline{\mathbf{r}}$	Q	Ι	$\underline{\mathbf{F}}$	<u>A</u>	Ι	H	19
26	162	. P	V	$\underline{\mathbf{F}}$	Ι	K	\underline{Q}	Ī	Р	F	19
27	203	I	V	Ī	Ι	S	<u>A</u>	Ī	G	L	19
28	221	L	L	Ī	L	K	$\underline{\underline{T}}$	$\underline{\mathtt{v}}$	L	G	19
29	245	Н	V	<u>C</u>	A	V	<u>F</u>	Ī	F	Y	19
30	306	R	L	$\underline{\mathtt{F}}$	Н	V	<u>A</u>	$\underline{\mathtt{T}}$	Н	A	19
31	40	Α	V	$\overline{\Gamma}$	G	N	$\overline{\mathbf{r}}$	$\underline{\underline{T}}$	I	I	18
32	85	Α	I	<u>F</u>	W	F	N	<u>s</u>	T	T	18
33	205	I	I	<u>s</u>	A	Ι	\underline{G}	$\overline{\Gamma}$	D	S	18
34	220	Y	L	$\overline{\mathbf{r}}$	I	L	<u>K</u>	$\underline{\mathtt{T}}$	V	L	18
35	253	Y	V	$\underline{\underline{P}}$	F	I	G	F	S	M	18
36	37	Y	L	I	A	V	$\underline{\mathtt{L}}$	\underline{G}	N	L	17
37	41	V	L	$\underline{\mathbf{G}}$	N	L	$\underline{\mathtt{T}}$	$\underline{\mathtt{I}}$	I	Y	17
38	117	L	L	<u>A</u>	M	A	$\underline{\mathbf{F}}$	$\underline{\mathtt{D}}$	R	Y	17
39	131	P	L	<u>R</u>	Н	A	$\underline{\mathtt{T}}$	$\overline{\Lambda}$	L	T	17
40	136	T	v	Ē	T.	L	<u>P</u>	<u>R</u>	V	T	17
											19

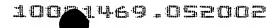


	Pos	1	2	3	4	5	6	7	8	9	score
41	180	Y	c	Ŀ	Н	Q	₽	<u>V</u>	М	ĸ	17
42	201	G	L	Ī	v	I	Ī	s	Α	I	17
43	213	s	L	Ē	I	s	F	s	Y	L	17
44	256	F	I	G	L	s	M	v	Н	R	17
45	261	М	v	H	R	F	<u>s</u>	K	R	R	17
46	276	I	L	Ā	N	I	Y	Ŀ	L	v	17
47	281	Y	L	Ē	V	P	P	v	L	N	17
48	286	P	v	L	N	P	I	v	Y	G	17
49	288	L	N	P	I	v	Y	G	v	ĸ	17
50	309	Н	v	Ā	Т	Н	Ā	s	E	P	17
51	1	М	v	D	P	N	G	N	E	s	16
52	56	s	L	H	E	p	M		I	F	16
53	70	G	I	₫	I	L	Ī	<u>Y</u> <u>S</u>	T	S	16
54	72	D	I	Ŀ	Ι	S	T	s	s	M	16
55	115	T	v	Ē	L	Α	M	A	F	D	16
56	125	. Y	v	A	I	С	H		L	R	16
57	144	T	ĸ	I	G	V	A	<u>P</u> <u>A</u>	V	v	16
58	167	Q	L	<u>P</u>	F	С	<u>R</u>	<u>s</u>	N	I	16
59	175	I	L	<u>s</u>	Н	s	<u>Y</u>	\overline{c}	L	Н	16
60	195	R	v	N	٧	V	$\underline{\underline{Y}}$	$\underline{\mathtt{G}}$	L	I	16
61	197	N	v	\underline{v}	Y	G	F	Ī	V	I	16
62	210	G	L	$\underline{\underline{D}}$	s	L	Ŀ	Ī	S	F	16
63	282	L	L	V	P	P	\underline{v}	L	N	P	16
64	299	E	I	R.	Q	R	Ī	Ŀ	R	L	16
65	301	R	Q	R	I	L	R	$\overline{\mathbf{r}}$	F	H	16
66	16	L	I	\underline{G}	L	P	G	$\underline{\mathbf{r}}$	E	E	15
67	46	Т	I	Ī	Y	I	$\overline{\Lambda}$	$\underline{\mathtt{R}}$	T	E	15
68	102	Q	I	$\underline{\mathbf{F}}$	Α	I	H	$\underline{\underline{s}}$	L	S	15
69	193	D	I	R	V	N	\underline{v}	$\underline{\mathtt{v}}$	Y	G	15
70	208	A	I	G	L	D	<u>s</u>	ഥ	L	I	15
71	223	1	L	ĸ	Т	V	$\underline{\mathtt{L}}$	G	L	T	15
72	237	K	A	F	G	Т	C	V	s	н	15

HLA-B*0702 nonomers(SEQ ID NOS 1748-1812, respectively in order of appearance)

	Pos	1	2	2	4	_	c	7		0	score
		7	2	3	4	5	0	,	0	9	
1	130	Н	P	L	R	Η	A	T	V	L	22
2	59	E	P	М	Y	I	F	L	С	M	21
3	168	L	P	F	С	R	S	N	I	L	20
4	289	N	P	I	V	Y	G	V	K	T	19
5	3	D	P	N	G	N	E	s	s	A	18
6	19	L	P	G	L	E	E	A	Q	F	18
7	140	L	P	R	V	T	K	I	G	v	18
8	284	v	P	P	V	L	N	P	I	v	17
9	31	F	P	L	C	s	L	Y	L	I	16
10	254	V	P	F	Ι	G	L	S	М	v	16
11	269	R	D	S	P	L	P	V	I	L	16

20



HLA-B*0702 nonomers(SEQ ID NOS 1748-1812, respectively in order of appearance)

	Pos										score
	105	1	2	3	4	5	6	7	8	9	30016
12	149		A	V	V	R	G	Α	Α	L	15
13	153	R	G	Α	A	L	M	A	Р	L	15
14	156	Α	L	M	A	P	L	P	V	F	15
15	251	I	F	Y	V	P	F	Ι	G	L	15
16	299	E	I	R	Q	R	Ι	Ļ	R	L	15
17	8	Е	S	S	A	Т	Y	F	Ι	L	14
18	28	W	L	A	F	P	L	С	S	L	14
19	30	Α	F	P	L	С	S	L	Y	L	14
20	110	S	G	M	E	S	T	٧	L	L	14
21	132	L	R	Н	Α	Т	V	L	T	Ļ	14
22	159	A	P	L	P	V	F	Ι	K	Q	14
23	222	L	Ι	L	K	Т	V	L	G	L	14
24	271	S	P	L	P	V	I	L	A	N	14
25	25	Α	Q	F	W	L	A	F	P	L	13
26	109	L	S	G	M	E	S	T	V	L	13
27	124	R	Y	V	A	Ι	С	H	Ρ	L	13
28	216	I	S	F	S	Y	Ļ	L	Ι	L	13
29	268	R	R	D	S	P	L	P	V	I	13
30	280	I	Y	L	L	V	P	P	V	L	13
31	11	Α	T	Y	F	Ι	L	I	G	L	12
32	34	С	S	L	Y	L	I	A	V	L	12
33	57	L	Н	Ε	P	M	Y	Ι	F	L	12
34	76	S	T	S	S	M	P	K	M	L	12
35	142	R	V	T	K	I	G	V	A	A	12
36	151	V	V	R	G	A	A	L	M	A	12
37	190		С	D	D	Ι	R	V	N	V	12
38	194		R	V	N	V	V	Y	G	L	12
39	206	I	S	Α	Ι	G	L	D	S	L	12
40	207	S	A	Ι	G	L	D	S	L	L	12
41	220	Y	L	L	Ι	L	K	Т	V	L	12
42	267	K	R	R	D	S	P	L	P	V	12
43	304	1	L	R	L	F	Н	V	A	T	12
44	14	F	I	L	Ι	G	L	P	G	L	11
45	23	E	E	Α	Q	F	W	L	A	F	11
46	37	Y	L	Ι	Α	V	L	G	N	L	11
47	40		V	L		N		Т		I	11
48	77	T	S				K			A	11
49	78	S	S	M	P		M	L	A	Ι	11
50	80	M	P		M		A.	I		W	11
51	92	· T	T -	I	Q	F	D	A	C	L	11
52	112	М	E	S		V		L		M	11
53	119	A			F		R	Y		A	11
54	127				Н	P		R		A -	11
55	131			R	Н		T	V	Г	T	11
56	155	A				A	P	L		V	11
57	157	L			P			V	F	Í	11
58	181	C		Н	Q		V		K	L	11
59	203	I			I	S	A	I	G	L	11
60	208	Α	Τ	Ġ	ц	ט	5	L	Т	Ι	11
											21

HLA-B*0702 nonomers(SEQ ID NOS 1748-1812, respectively in order of appearance)

	Pos			score							
	FUS	1	2	3	4	5	6	7	8	9	SCOLE
61	213	S	L	L	I	S	F	S	Y	L	11
62	248	Α	v	F	Ι	F	Y	V	P	F	11
63	265	F	S	K	R	R	D	S	P	L	11
64	275	V	I	L	Α	N	1	Y	L	L	11
65	285	P	P	V	L	N	P	I	V	Y	11

HLA-B*08 nonomers(SEQ ID NOS 1813-1847, respectively in order of appearance)

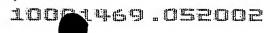
	Pos										score
		1	2	3	4	5	6	7	8	9	
1	299	Ε	Ι	R	Q	R	Ι	L	R	L	31
2	265	F	S	K	R	R	D	s	Ρ	L	29
3	149	Α	A	V	V	R	G	A	A	L	24
4	168	L	P	F	С	R	S	N	Ι	L	24
5	294	G	V	K	T	K	E	Ι	R	Ò	21
6	120	M	A	F	D	R	Y	V	Α	I	20
7	292	v	Y	G	V	K	T	K	Ε	I	20
8	21	G	L	E	Ε	A	Q	F	W	L	19
9	78	S	S	M	P	K	M	L	Α	I	19
10	160	P	L	P	V	F	I	K	Q	L	19
11	186	٧	M	K	L	A	С	D	D	I	18
12	213	S	L	L	I	S	F	S	Y	L	18
13	221	L	L	I	L	K	T	V	L	G	18
1,4	296	K	T	K	E	I	R	Q	R	I	18
15	297	\mathbf{T}	K	E	Ι	R	Q	R	I	L	18
16	130	Н	P	L	R	H	Α	T	V	L	17
17	181	С	L	H	Q	D	٧	M	K	L	17
18	223	I	L	K	T	v	L	G	L	T	17
19	28	W	L	A	F	P	L	С	s	L	16
20	37	Y	L	I	A	v	L	G	N	L	16
21	56	s	L	Н	E	P	М	Y	I	F	16
22	80	М	P	K	M	L	Α	I	F	W	16
23	162	P	٧	F	I	K	Q	L	P	F	16
24	201	G	L	I	V	I	I	s	Α	I	16
25	207	s	Α	I	G	L	D	s	L	L	16
26	214	L	L	I	s	F	S	Y	L	L	16
27	220	Y	L	L	I	L	K	T	٧	L	16
28	233	E	Α	Q	A	K	A	F	G	T	16
29	275	V	I	L	Α	N	I	Y	L	L	16
30	304	I	L	R	L	F	Н	V	Α	T	16
31	14	F	Ι	L	I	G	L	P	G	L	15
32	110	s	G	M	E	S	T	V	L	L	15
33	138	L	Т	L	P	R	v	Т	K	I	15
34	164	F	I	ĸ	Q	L	P	F	С	R	15
35	222	L	I	L	K	T	v	L	G	L	15

HLA-B*1510 nonomers(SEQ ID NOS 1848-1890, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
1	57	L	Н	E	P	М	Y	I	F	L	23
2	244	s	н	v	C	A	v	F	I	F	17
3	269	R	D	s	P	L	P	v	I	L	16
4	280	I	Y	L	L	v	P	P	v	L	16
5	262	v	н	R	F	s	K	R	R	D	15
6	299	E	I	R	Q	R	I	L	R	L	15
7	106	I	н	s	L	s	G	М	E	s	14
8	206	I	s	A	I	G	L	D	s	L	14
9	220	Y	L	L	I	L	ĸ	T	v	L	14
10	251	I	F	Y	v	P	F	I	G	L	14
11	297	Т	K	E	I	R	Q	R	I	L	14
12	21	G	L	E	E	Α	Q	F	W	L	13
13	34	С	s	L	Y	L	I	Α	v	L	13
14	54	Е	н	s	L	Н	Е	Р	М	Y	13
15	110	s	G	М	Е	s	Т	v	L	L	13
16	194	I	R	v	N	v	v	Y	G	L	13
17	8	E	s	s	Α	Т	Y	F	I	L	12
18	14	F	I	L	I	G	L	P	G	L	12
19	28	W	L	Α	F	P	L	С	s	L	12
20	66	.C	M	L	s	G	I	D	I	L	12
21	76	s	T	s	s	М	P	K	М	L	12
22	92	Т	T	I	Q	F	D	Α	С	L	12
23	109	L	S	G	М	E	s	T	V	L	12
24	130	Н	P	L	R	Н	Α	Т	V	L	12
25	132	L	R	Н	A	Т	V	L	T	L	12
26	149	Α	A	V	V	R	G	Α	A	L	12
27	153	R	G	Α	A	L	M	A	P	L	12
28	160	P	L	P	V	F	I	K	Q	L	12
29	181	C	L	H	Q	D.	V	M	K	L	12
30	182	L	Н	Q	D	V	M	K	L	A	12
31	203	I	V	I	I	S	A	Ι	G	L	12
32	216	I	S	F	S	Y	L	L	Ι	L	12
33	222	L	I	L	K	T	V	L	G	L	12
34	275	V	I	L	Α	N	I	Y	Ļ	L	12
35	37	Y	L	Ι	Α	V	L	G	N	L	11
36	49	Y	I	V	R	T	E	H	S	L	11
37	93	T -	I	Q	F	D	A -	C	L	L	11
38	101	L	Q	I	F	A	I	Н	s	L	11
39	129	C	Н	P	L	R	H	A	T	V	11
40	133	R	H	A	T	V	L	T	L	P	11
41	177	S	H	S	Y	C	L	Н	Q	D	11
42	207	S	A	I	G	L	D	S	Г	L	11
43	257	I	G	L	S	M	V	Н	R	F	11

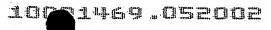
HLA-B*2705 nonomers(SEQ ID NOS 1891-2008, respectively in order of appearance)

Pos 1 2 3 4 5 6 7 8 9 score



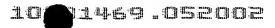
HLA-B*2705 nonomers(SEQ ID NOS 1891-2008, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
1	194	I	R	v	N	v	v	Y	G	L	25
2	268	R	R	D	S	P	L	P	V	I	24
3	132	L	R	Н	A	Т	V	L	T	L	23
4	300	I	R	Q	R	I	L	R	L	F	23
5	305	L	R	L	F	Н	٧	A	T	н	23
6	231	Т	R	E	A	Q	Α	K	A	F	21
7	34	С	S	L	Y	L	I	A	V	L	. 18
8	299	Ε	I	R	Q	R	Ι	L	R	L	18
9	6	G	N	E	S	s	Α	T	Y	F	17
10	66	С	M	L	S	G	I	D	I	L	17
11	162	P	V	F	I	K	Q	L	P	F	17
12	207	S	A	I	G	L	D	S	L	L	17
13	210	G	L	D	S	L	L	I	S	F	17
14	.220	Y	L	L	I	L	K	T	V	L	17
15	237	K	A	F	G	T	С	V	s	H	17
16	269	R	D	s	P	L	P	V	I	L	17
17	280	I	Y	L	L	V	P	P	v	L	17
18	295	, v	ĸ	T	K	E	I	R	Q	R	17
19	. 11	A	T	Y	F	I	L	Ι	G	L	16
20	14	F	I	L	I	G	L	P	G	L	16
21	21	G	L	E	E	A	Q	F	W	L	16
22	25	Α	Q	F	W	L	Α	F	P	L	16
23	37	Y	L	I	Α	v	L	G	N	L	16
24	92	T	T	I	Q	F	D	A	С	L	16
25	101	L	Q	I	F	Α	I	Н	s	L	16
26	124	R	Y	٧	Α	I	С	Н	P	L	16
27	130	Н	P	L	R	Н	A	T	V	L	16
28	141	Р	R	V	Т	K	I	G	V	Α	16
29	153	R	G	Α	A	L	M	Α	P	L	16
30	181	С	L	Н	Q	D	V	M	K	L	16
31	201	G	L	I	V	I	I	s	Α	I	16
32	203	I	V	I	I	S	Α	1	G	L	16
33	216	I	S	F	s	Y	L	L	I	L	16
34	222	L	I	L	K	T	V	L	G	L	16
35	255	P	F	I	G	L	s	M	V	H	16
36	257	I	G	L	s	M	V	Н	R	F	16
37	275	V	I	L	A	N	I	Y	L	L	16
38	47	I	I	Y	I	V	R	T	E	H	15
39	109	L	S	G	M	E	S	T	٧	L	15
40	114	s	T	V	L	L	A	M	Α	F	15
41	123	D	R	Y	V	Α	I	C	Н	P	15
42	145	K	I	G	V	Α	A	V	V	R	15
43	156	Α	L	M	A	P	L	P	V	F	15
44	168	L	P	F	С	R	S	N	Ι	L	15
45	172	R	S	N	I	L	s	Н	s	Y	15
46	198	V		Y	G	L	Ι	V	Ι	I	15
47	206	I	S	A	1	G	L	D	s	L	15
48	229	G	L	T	R	Ε	A	Q	A	K	15
49	248	A	V	F	I	F	Y	V	P	F	15
											24



HLA-B*2705 nonomers(SEQ ID NOS 1891-2008, respectively in order of appearance)

	Pos									٠	score
	103	1	2	3	4	5	6	7	8	9	50010
50	251	I	F	Y	V	P	F	Ι	G	L	15
51	274	P	V	Ι	L	A	N	I	Y	L	15
52	290	P	I	V	Y	G	V	K	T	K	15
53	298	K	E	Ι	R	Q	R	Ι	L	R	15
54	19	L	P	G	L	E	E	Α.	Q	F	14
55	29	L	A	F	P	L	С	S	L	Y	14
56	30	Α	F	P	L	С	S	L	Y	L	14
57	39	I	A	V	L	G	N	L	T	I	14
58	40	Α	V	L	G	N	L	T	Ι	I	14
59	79	S	M	P	K	M	L	A	Ι	F	14
60	81	P	K	M	L	A	I	F	W	F	14
61	99	С	L	L	Q	I	F	A	I	H	14
62	137	V	L	T	Ļ	P	R	V	T	K	14
63	138	L	T	L	P	R	V	T	K	I	14
64	. 150	Α	V	V	R	G	A	A	L	M	14
65	160	P	L	P	V	F	I	K	Q	L	14
66	174	N	I	L	s	Н	s	Y	C	L	14
67	180	Y	C	L	H	Q	D	V	M	K	14
68	192	D	D	Ι	R	V	N	V	v	Y	14
69	212	D	s	L	L	Ι	s	F	s	Y	14
70	213	S	L	L	I	s	F	S	Y	L	14
71	214	L	L	I	S	F	s	Y	L	L	14
72	260	S	M	V	Н	R	F	s	K	R	14
73	263	Н	R	F	s	K	R	R	D	s	14
74	267	К	R	R	D	s.	P	L	Р	v	14
75	293	Y	G	V	K	Т	K	Ε	I	R	14
76	301	R	Q	R	I	L	R	L	F	н	14
77	302	Q	R	I	L	R	L	F	Н	v	14
78	5	N	G	N	Ε	s	s	Α	Т	Y	13
79	23	E	E	Α	Q	F	W	L	Α	F	13
80	28	W	L	Α	F	Р	L	С	s	L	13
81	44	N	L	Т	I	I	Y	I	v	R	. 13
82	51	v	R	т	Ε	Н	s	L	Н	E	13
83	56	s	L	Н	Ε	P	М	Y	I	F	13
84	60	P	M	Y	I	F	L	С	М	L	13
85	72	D	I	L	I	s	Т	s	s	М	13
86	74	L	I	s	T	s	s	M	P	ĸ	13
87	75	I	s	Т	s	s	М	P	K	M	13
88	98	Α	C	L	L	Q	I	F	Α	I	13
89	104	F	Α	Ι	Н	S	L	S	G	M	13
90	110	s	G	M	Ė	S	Т	V	L	L	13
91	116	v	L	L	Α	М	Α	F	D	R	13
92	126	v	Α	I	С	Н	P	L	R	н	. 13
93	149	Α	A	v	v	R	G	Α	Α	L	13
94	158	М	A	P	Ļ	P	v	F	I	ĸ	13
95	164	F	I	K	Q	L	P	F	С	R	13
96	170	F	С	R	S	N	I	L	s	н	13
97	171	С	R	s	N	I	L	s	Н	s	13
98	187	М	ĸ	L	Α	С	D	D	Ι	R	13
											24

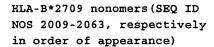


HLA-B*2705 nonomers(SEQ ID NOS 1891-2008, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
99	.217	s	F	s	Y	L	L	I	L	K	13
100	224	L	K	Ť	V	L	G	L	T	R	13
101	242	С	v	S	Н	V	С	A	V	F	13
102	256	F	I	G	L	s	M	V	Н	R	13
103	261	М	v	Н	R	F	S	K	R	R	13
104	49	Y	I	V	R	T	E	Н	S	L	12
105	57	L	H	E	P	М	Y	Ι	F	L	12
106	88	W	F	N	S	T	Т	1	Q	F	12
107	96	F	D	A	С	L	L	Q	I	F	12
108	134	Н	A	T	V	L	T	L	P	R	12
109	152	v	R	G	Α	Α	L	M	Α	P	12
110	179	S	Y	С	L	Н	Q	D	V	M	12
111	197	N	v	V	Y	G	L	I	V	I	12
112	244	S	H	V	С	Α	V	F	I	F	12
113	265	F	S	K	R	R	D	s	P	L	12
114	273	L	P	V	I	L	Α	N	I	Y	12
115	285	P	P	V	Ŀ	N	P	I	V	Y	12
116	288	L	N	P	I	V	Y	G	V	K	12
117	296	K	T	K	E	I	R	Q	R	I	12
118	297	Т	K	E	I	R	Q	R	Ι	L	12

HLA-B*2709 nonomers (SEQ ID NOS 2009-2063, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
1	194	I	R	v	N	v	V	Y	G	L	24
2	268	R	R	D	s	P	L	P	V	I	24
3	132	L	R	Н	A	Т	V	L	T	L	22
4	267	К	R	R	D	S	P	L	P	V	21
5	300	I	R	Q	R	I	L	R	L	F	20
6	231	T	R	E	A	Q	A	K	A	F	19
7	302	Q	R	I	L	R	L	F	H	V	19
8	124	R	Y	V	A	I	C	Н	P	L	16
9	269	R	D	S	P	L	P	٧	I	L	16
10	43	G	N	L	T	Ι	I	Y	I	V	15
11	216	I	S	F	S	Y	L	L	I	L	15
12	11	Α	T	Y	F	I	L	I	G	L	14
13	25	Α	Q	F	W	L	Α	F	P	L	14
14	153	R	G	A	Α	L	M	A	P	L	14
15	174	N	I	L	S	Н	S	Y	С	L	14
16	222	L	I	L	K	T	V	L	G	L	14
17	257	I	G	L	s	M	V	H	R	F	14
18	280	I	Y	Ļ	L	V	P	P	V	L	14
19	6	G	N	Е	S	S	A	Т	Y	F	13
20	14	F	I	L	I	G	L	P	G	L	13
21	21	G	L	E	Ε	A	Q	F	W	L	13
22	66	C	M	L	s	G	I	D	I	L	13
											20



	Pos										score
		1	2	3	4	5	6	7	8	9	
23	130	Н	P	L	R	Н	A	Т	V	L	13
24	201	G	L	Ι	V	Ι	I	S	Α	I	13
25	203	I	V	Ι	Ι	S	A	Ι	G	L	13
26	214	Г	L	Ι	S	F	S	Y	L	L	13
27	251	I	F	Y	V	P	F	Ι	G	L	. 13
28	263	Н	R	F	S	K	R	R	D	S	13
29	275	V	I	L	Α	N	Ι	Y	Ļ	L	13
30	305	Г	R	L	F	Н	V	A	T	Н	13
31	30	Α	F	P	L	С	S	L	Y	L	12
32	34	C	s	L	Y	L	I	A	V	L	12
33	37	Y	L	Ι	Α	V	L	G	N	L	12
34	51	v	R	T	E	Н	s	L	Н	Е	12.
35	60	P	М	Y	I	F	L	С	M	L	12
36	75	I	S	T	S	S	M	P	K	M	12
37	93	T	I	Q	F	D	A	С	L	L	12
38	123	D	R	Y	V	A	I	С	Н	P	12
39	135	Α	T	V	L	T	L	P	R	V	12
40	138	L	T	L	P	R	V	T	K	I	12
41	149	Α	A	V	V	R	G	A	Α	L	12
42	155	Α	Α	L	M	A	P	L	P	V	12
43	168	\mathbf{L}	P	F	С	R	s	N	I	L	12
44	181	С	L	Н	Q	D	V	М	K	L	12
45	188	K	Ļ	Α	С	D	D	Ι	R	V	12
46	190	Α	С	D	D	I	R	V	N	V	12
47	195	R	V	N	V	V	Y	G	L	I	. 12
48	210	G	L	D	S	L	L	I	s	F	12
49	213	S	L	L	I	S	F	S	Y	L	12
50	220	Y	L	L	I	L	K	T	V	L	12
51	248	Α	V	F	Ι	F	Y	V	P	F	12
52	279	N	I	Y	L	L	V	P	P	V	12
53	287	V	L	N	P	I	V	Y	G	v	12
54	296	K	Т	K	E	I	R	Q	R	I	12
55	299	E	I	R	Q	R	I	L	R	L	12

HLA-B*5101 nonomers(SEQ ID NOS 2064-2132, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	score
1	39	I	A	v	L	G	N	L	Т	I	26
· 2	31	F	P	L	С	S	L	Y	Ļ	I	25
3	120	M	A	F	D	R	Y	V	Α	I	24
4	130	Н	P	L	R	Н	A	Т	V	L	23
5	118	L	A	М	Α	F	D	R	Y	v	22
6	140	L	P	R	V	T	K	I	G	v	22
7	155	A	A	L	M	Α	P	L	P	v	22
8	42	L	G	N	L	T	Ι	I	Y	I	21
9	254	V	P	F	Ι	G	L	s	M	V	21
10	284	V	P	P	٧	L	N	P	Ι	v	21
											27

Serial No. 10/001,469 Docket No. 511582002420 HLA-B*5101 nonomers(SEQ ID NOS 2064-2132, respectively in order of appearance)

	Pos	,	_	_		_	_	_	_	_	score
11	160	1 L	2 P	3	4 C	5 R	6	7 N	8	9	. 20
12	168		P A	F	A		S	N	C	L	20
13	235	Q		K		F	G	T		v	20 19
	138	L	T	L	P	R	V	T	K	I	
14	159	A	P	L	Þ	V	F	I	K	Q	18
15	189	L	A	C	D	D	I	R	V	N	18
16	198	V	V	Y	G	L	Ι	V	I	I	18
17	277	L	A	N	I	Y	L	L	V	P -	18
18	207	S	A	I	G	L	D	S	L	L	17
19	283	L	v	P	P	V	L	N	P	I	17
20	63	I	F	Г	С	M	L	S	G	I	16
21	86	Ι	F	W	F	N	S	Т	Т	Ι	16
22	110	S	G	M	Ε	S	Т	V	L	L	16
23	144	Т	K	Ι	G	V	A	A	V	V	16
24	149	A	A	V	V	R	G	A	Α	L	16
25	197	N	V	V	Y	G	L	Ι	V	I	16
26	271	S	P	L	P	V	I	L	A	N	16
27	280	I	Y	L	L	V	Ρ	P	V	L	16
28	3	D	P	N	G	N	E	Ş	S	A	15
29	40	A	V	L	G	N	L	Т	Ι	I	15
30	97	D	A	С	L	L	Q	Ι	F	A	15
31	132	L	R	Н	A	T	V	L	Т	L	15
32	222	\mathbf{L}	I	L	K	T	V	L	G	L	15
33	279	N	I	Y	L	L	V	P	P	٧,	15
34	285	P	P	V	L	N	P	Ι	V	Y	15
35	289	N	P	I	V	Y	G	V	K	T	15
36	9	S	s	Α	T	Y	F	I	L	I	14
37	65	L	Ç	M	L	S	G	Ι	D	I	14
38	84	L	A	I	F	W	F	N	S	T	14
39	126	V	A	I	С	Н	P	L	R	H	14
40	157	L	M	A	P	L	P	V	F	I	14
41	158	M	A	P	L	P	V	F	I	K	14
42	191	С	D	D	I	R	V	N	V	V	14
43	200	Y	G	L	Ι	V	I	I	S	A	14
44	209	I	G	L	D	S	L	L	I	S	14
45	215	L	I	s	F	s	Y	L	L	I	14
46	219	s	Y	L	L	I	L	K	T	V	14
47	220	Y	L	L	I	L	K	T	V	L	14
48	237	K	A	F	G	Т	С	V	S	Н	14
49	247	C	A	٧	F	I	F	Y	V	P	14
50	249	v	F	I	F	Y	٧	P	F	I	14
51	251	I	F	Y	V	P	F	I	G	L	14
52	257	I	G	L	S	М	v	Н	R	F	14
53	268	R	R	D	s	P	L	P	V	I	14
54	273	L	P	v	I	L	Α	N	I	Y	. 14
55	29	L	A	F	₽	·L	С	s	Ļ	Y	13
56	33	L	С	s	L	Y	L	I	A	v	13
57	55	Н	s	L	Н	E	P	M.	Y	I	13
58	67	М	L	s	G	I	D	I	L	I	13
59	80	М	P	K	М	L	Α	I	F	W	13
											29

HLA-B*5101 nonomers(SEQ ID NOS 2064-2132, respectively in order of appearance)

	Pos	1	2	3	1	_	c	7	٥	۵	score
			2	2	4	2	О	′	0	7	
60	95	Q	F	D	Α	С	L	Ļ	Q	I	13
61	98	Α	C	L	L	Q	Ι	F	Α	I	13
62	104	F	A	I	Н	s	L	s	G	M	13
63	146	I	G	V	Α	Α	٧	V	R	G	13
64	148	V	A	Ά	V	V	R	G	A	A	13
65	153	R	G	A	A	L	М	A	P	L	13
66	233	E	A	Q	Α	K	A	F	G	T	13
67	243	V	s	Н	V	С	A	V	F	I	13
68	292	v	Y	G	V.	K	T	K	E	I	13
69	296	K	T	K	E	I	R	Q	R	I	13

Please replace Table XXVII, beginning at page 201, line 1, with the following rewritten

Table XXVII:

--Table XXVII:

HLA Class I decamers

HLA-Al decamers (SEQ ID NOS 2133-2153, respectively in order of appearance)

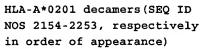
	Pos	1	2	3	4	5	6	7	8	9	0	score
1	191	С	$\overline{\mathbf{D}}$	D	I	R	٧	N	٧	v	Y	27
2	244	S	H	v	С	A	V	F	I	F	Y	24
3	40	Α	\underline{v}	L	G	N	L	$\underline{\mathtt{T}}$	I	I	Y	21
4	284	V	<u>P</u>	P	V	L	N	<u>P</u>	I	v	Y	21
5	116	V	L	L	A	M	Α	F	D	R	Y	20
6	28	W	$\overline{\mathbf{r}}$	A	F	P	L	$\underline{\underline{c}}$	S	L	Y	18
7	297	Т	$\underline{\mathbf{K}}$	E	I	R	Q	$\underline{\mathtt{R}}$	I	L	R	17
8	21	G	$\overline{\mathbf{r}}$	E	E	Α	Q	$\underline{\mathbf{F}}$	W	L	A	16
9	22	L	E	E	A	Q	F	M	L	A	F	16
10	52	R	$\underline{\mathbf{T}}$	E	Н	s	L	$\underline{\mathbf{H}}$	E	P	M	16
11	53	T	E	Н	s	Ļ	H	E	P	M	Y	16
12	57	L	H	E	₽	M	Y	Ī	F	L	С	16
13	111	G	\underline{M}	E	S	T	٧	$\overline{\mathbf{r}}$	L	A	M	16
14	272	P	\overline{r}	P	V	I	L	<u>A</u>	N	I	Y	16
15	1	M	$\underline{\mathtt{v}}$	D	P	N	G	$\underline{\mathbf{N}}$	E	S	S	15
16	4	P	\underline{N}	G	N	Ε	S	<u>s</u>	A	T	Y	15
17	121	A	F	D	R	Y	V	A	I	C	Н	15
18	171	С	<u>R</u>	S	N	I	L	<u>s</u>	Н	S	Y	15
19	211	L	$\underline{\underline{D}}$	S	L	L	I	<u>s</u>	F	S	Y	15
20	8	E	$\underline{\underline{s}}$	S	Α	Т	Y	<u>F</u>	I	L	Ι	13
21	190	A	$\underline{\mathtt{c}}$	D	D	I	R	$\underline{\mathtt{v}}$	N	v	V	13

HLA-A*0201 decamers (SEQ ID NOS 2154-2253, respectively in order of appearance)

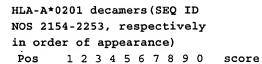
Pos 1 2 3 4 5 6 7 8 9 0 score

HLA-A*0201 decamers (SEQ ID NOS 2154-2253, respectively in order of appearance)

			OI				ra		e)			
	Pos	1	2	3	4	5	6	7	8	9	0	score
1	221	L	L	Ι	L	K	$\underline{\mathbf{T}}$	٧	L	G	L	30
2	100	L	L	Q	Ι	F	A	Ι	Н	S	L	. 29
3	282	L	L	V	P	P	$\underline{\mathtt{v}}$	L	N	P	I	27
4	205	I	I	S	Α	I	G	L	D	S	L	26
5	213	s	L	L	I	S	F	S	Y	L	L	25
6	56	·s	L	Н	E	P	M	Y	Ι	F	L	24
7	62	Y	I	F	L	С	M	L	S	G	Ι	24
8	108	s	L	s	G	М	E	s	Т	v	L	. 24
9	117	L	L	Α	М	Α	F	D	R	Y	v	24
10		P	L	R	Н	Α	T	v	L	т	L	24
11	137	V	L	т	L	P	R	v	т	ĸ	I	24
12		L	I	s	F	s	Y	L	L	I	L	24
13		L	I	A	v	L	G	N	L	Т	ī	23
14		v	L	G	N	L	T	I	I	Y	I	23
15		A	L	М	A	Р	Ļ	P	v	F	I	23
16		D	I	R	V	N	v	V	Y	G	L	23
							_					
17		L	L	I	S	F	<u>s</u>	Y	L	L	I	23
18		P	L	C	S	L	<u>Y</u>	L	I	A	v -	22
19		Α	M	A	F	D	<u>R</u>	Y	V	A	Ι	22
20		K	A	F	G	Т	\underline{c}	V	S	Н	V	22
21		V	I	L	A	N	Ī	Y	L	L	V	22
22		Α	I	F	W	F	\overline{N}	S	T	T	I	21
23	139	Т	L	P	R	V	<u>T</u>	K	I	G	V	21
24	202	L	I	V	Ι	I	<u>s</u>	A	I	G	L	21
25	13	Y	F	I	L	I	\underline{G}	L	P	G	L	20
26	16	L	I	G	L	P	G	L	E	E	Α	20
27	29	L	A	F	P	L	$\underline{\mathbf{c}}$	S	L	Y	L	20
28	142	R	v	T	K	I	G	٧	A	A	٧	20
29	148	v	A	Α	v	V	R	G	A	A	L	20
30	167	Q	L	P	F	С	R	s	N	I	L	20
31	180	Y	C	L	Н	Q	D	V	М	K	L	20
32	222	L	I	L	K	Т	v	L	G	L	Т	. 20
33	240	G	T	С	v	s	H	v	С	A	V	20
34	248	Α	v	F	I	F	Y	v	P	F	I	20
35	250	F	I	F	Y	v	P	F	I	G	L	20
36	271	s	P	L	P	v	Ī	L	Α	N	Ι	20
37		N	I	Y	L	L	_	P		v	L	20
38		I	L	R	L	F	H	v	A	T	Н	20
39		s	A	Т	Y	F	Ī	L	I	G	L	19
40		I	L	I	G	L	P	G	L	E	E	19
41		F	W	L	Α	F	P	L	С	s	L	19
42		s	L	Y	L	I	A	v	L	G	N	19
43		Y	L	I	А			G	N	L		
						V	T.				T	19
44		N	L	T	I	I	Y	I	V	R	T	19
45		F	L	C	M	L	<u>S</u>	G	I	D	I	19
46		M	L	A	I	F	M	F	N	S	T	19
47		A	P	L	P	V	F	I	K	Q	L	19
48		L	A	С	D	D	Ī	R	V	N	V	19
49		s	A	Ι	G	L	D	s	L	L	Ι	19
50	253	Y	V	P	F	I	\underline{G}	L	S	M	V	19
												30



		der o		рÞ		ı a		e,			
	Pos	1 2		4	5	6	7	8	9	0	score
51	276	ΙL		N	Ι	<u>Y</u>	L	L	V	P	19
52	281	Y L	L	V	P	<u>P</u>	V	L	N	P	19
53	283	L V	P	P	V	$\overline{\mathbf{r}}$	N	P	I	V	19
54	286	ΡV	L	N	P	Ī	V	Y	G	V	19
55	33	LС	S	L	Y	$\overline{\Gamma}$	I	A	v	L	18
56	36	LY	L	I	A	\underline{v}	L	G	N	L	18
57	39	ΙA	v	L	G	N	L	T	I	I	18
58	42	ЬG	N	L	Т	I	I	Y	Į	V	18
59	66	СМ	L	s	G	I	D	I	L	I	18
60	111	G M	E	s	Т	V	L	L	A	М	18
61	128	I C	Н	P	L	R	Н	Α	T	v	18
62	134	н А	т	v	L	T	L	P	R	v	18
63	154	G A	A	L	M	A	P	L	P	v	18
64	157	LM	Α	P	L	P	V	F	I	K	18
65	190	AC	D	D	1	R	v	N	v	v	18
66	229	GL	т	R	E	A	Q	Α	K	Α	18
67	245	нν		Α	v	F	I	F	Y	v	18
68	274	ΡV	· I	L	Α	N	I	Y	L	Ļ	18
69	278	AN		Y	L	L	v	P	P	V	18
70	291	ΙV		G	v	K	Т	K	E	I	18
71	298	KE		R	Q	R	I	L	R	L	18
72	48	ΙY		v	R	T	E	Н	s	L	17
73	65	ьc	М	L	s	G	I	D	I	L	17
74	67	M L	s	G	Ι	D	I	L	I	s	17
75	74	LI	S	Т	s	S	M	P	K	М	17
76	91	s T	т	Ι	Q	F	D	Α	C	L	17
77	94	ΙQ	F	D	Α	c	L	L	Q	I	17
78	188	K L	Α	С	D	D	I	R	v	N	17
79	197	N V	v	Y	G	Ŀ	I	V	I	I	17
80	200	ΥG	L	I	V	Ī	I	s	A	Ι	17
81	218	F S	Y	L	L	<u>I</u>	L	K	T	V	17
82	227	V L	G	L	T	R	E	A	Q	A	17
83	303	RI	L	R	L	$\underline{\mathbf{F}}$	Н	V	A	Т	17
84	21	G L	E	Е	A	Q	F	W	L	A	16
85	92	T T	Ι	Q	F	$\underline{\mathtt{D}}$	A	С	L	L	16
86	97	D A	C	L	L	Q	Ι	F	A	Ι	16
87	127	AI		Н		_	R		A	Т	16
88	143	VI		Ι	G	V	Α	A		V	16
89	195	R V		V	V	<u>Y</u>	G	Ļ	I	V	16
90	220	Y L		I	L	<u>K</u>		V	L	G	16
91	296	кт		E	Ι	R	Q	R	I	L	16
92	18	G L		G	L	E	E	Α	Q	F	15
93	30	A F		L	С	<u>s</u>	L	Y	L	Ι	15
94	126	V A		С	H	P	L	R	Н	Α	15
95	145	ΚI		V	A	<u>A</u>		V	R	G	15
96	173	SN		L	s	H	S	Y	C	L	15
97	201	G L		V	I	Ī	S	A	I	G	15
98	208	AI		L	D	<u>s</u>	L	L	I	S	15
99	210	G L		S	L	r F	Ι	S	F	S	15
100	267	KR	R	D	S	<u>P</u>	L	P	V	Ι	15
											31



HLA-A*0203 decamers(SEQ ID NOS 2254-2301, respectively in order of appearance)

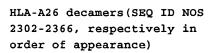
	D	-	_	_		_	_	7		^	^	
	Pos	1	2	3	4	5	6	7	8	9	0	score
1	141	P	<u>R</u>	v	Т	K	Ι	G	V	A	A _.	19
2	147	G	Ā	A	A	V	V	R	G	A	A	19
3	112	M	E	S	T	V	L	<u>r</u>	A	M	A	18
4	227	V	F	G	L	T	R	E	A	Q	A	18
5	229	G	F	T	R	E	A	Ō	A	K	Α	18
6	142	·R	<u>v</u>	T	K	I	G	$\overline{\Lambda}$	A	A	V	17
7	148	V	<u>A</u>	A	V	V	R	$\underline{\mathbf{G}}$	A	A	L	17
8	2	V	$\overline{\mathtt{D}}$	P	N	G	N	\mathbf{E}	S	S	A	10
9	16	L	$\underline{\mathtt{I}}$	G	L	P	G	$\overline{\mathbf{r}}$	Ē	Ε	Α	10
10	21	G	$\overline{\Gamma}$	E	Ε	Α	Q	F	W	L	A	10
11	31	F	<u>P</u>	L	С	S	L	Ϋ́	L	I	A	10
12	76	S	$\underline{\mathtt{T}}$	S	s	M	P	<u>K</u>	M	L	A	10
13	89	F	$\overline{\mathbf{N}}$	S	T	T	Ι	Q	F	D	A	10
14	96	F	$\overline{\mathbf{D}}$	A	C	L	L	$\underline{{\tt Q}}$	Ι	F	A	10
15	110	S	\underline{G}	M	Ε	S	T	$\overline{\Lambda}$	L	L	Α	10
16	118	L	Ä	M	Α	F	D	$\underline{\mathbf{R}}$	Y	V	A	10
17	126	V	A	I	C	H	P	$\overline{\Gamma}$	R	H	A	10
18	140	L	<u>P</u>	R	V	T	K	I	G	v	A	10
19	146	I	\underline{G}	V	A	A	V	$\overline{\Lambda}$	R	G	A	10
20	150	Α	\underline{v}	V	R	G	A	A	L	M	A	10
21	181	. C	ᆫ	H	Q	D	٧	$\underline{\underline{M}}$	K	L	A	10
22	199	V	<u>Y</u>	G	L	I	V	Ī	I	S	A	10
23	225	K	$\underline{\underline{\mathtt{T}}}$	v	L	G	L	$\underline{\textbf{T}}$	R	E	Α	10
24	239	F	\underline{G}	T	С	V	S	$\underline{\mathbf{H}}$	٧	C	Α	10.
25	269	R	$\underline{\mathtt{D}}$	S	P	L	P	$\bar{\Lambda}$	I	L	A	10
26	302	Q	$\underline{\mathbf{R}}$	I	L	R	L	$\underline{\mathbf{F}}$	Η	v	A	10
27	305	L	<u>R</u>	L	F	Н	V	<u>A</u>	T	H	Α	10
28	3	D	<u>P</u>	N	G	N	E	<u>s</u>	s	A	Т	9
29	17	I	G	L	P	G	L	$\underline{\mathbf{E}}$	Ε	A	Q	9
30	22	L	E	E	A	Q	F	\overline{M}	L	A	F	9
31	32	P	$\overline{\mathbf{r}}$	C	S	L	Y	$\underline{\underline{\Gamma}}$	Ι	A	V	9
32	77	Т	<u>s</u>	S	M	P	K	$\underline{\underline{M}}$	L	A	Ι	9
33	90	N	\underline{s}	T	T	Ι	Q	F	D	A	С	9
34	97	D	A	C	L	L	Q	Ī	F	A	Ι	9
35	111	G	M	E	S	T	V	$\overline{\Gamma}$	L	A	M	9
36	113	E	<u>s</u>	T	V	L	L	<u>A</u>	M	A	F	9
37	119		<u>M</u>					_				9
38	127	Α	Ī		H		L	<u>R</u>	Н		T	9
39	151		$\overline{\Lambda}$		G		Α	$\overline{\mathbf{r}}$		A	P	. 9
40	182		H			V		<u>K</u>		A		9
41	200		G	L	Ι			Ī		A	I	9
42	226	T	_		G		T	$\underline{\mathbf{R}}$	E	A		9
43	228	L	G	L	T	R	E	<u>A</u>	Q	A	K	
												32

HLA-A*0203 decamers(SEQ ID NOS 2254-2301, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	0	score
44	230	L	$\underline{\mathbf{T}}$	R	E	A	Q	A	K	A	F	9
45	240	G	$\underline{\mathtt{T}}$	C	V	S	Н	$\underline{\mathtt{v}}$	С	A	v	9
46	270	D	\underline{s}	P	L	P	V	Ī	L	A	N	9
47	303	R	I	L	R	L	F	<u>H</u>	V	A	Т	9
48	306	R	L	F	Н	V	Α	T	Н	A	S	9

HLA-A26 decamers(SEQ ID NOS 2302-2366, respectively in order of appearance)

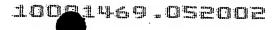
	Pos	1	2	3	4	5	6	7	8	9	0	score
1	299	E	I	R	Q	R	I	L	R	L	F	31
2	193	D	I	R	V	N	V	٧	Y	G	L	29 .
3	250	F	I	F	Y	V	P	F	I	G	Ļ	25
4	256	F	I	G	L	s	M	V	Н	R	F	25
5	74	L	I	s	T	S	s	M	P	K	M	24
6	274	P	V	I	L	Α	N	I	Y	L	L	24
7	18	G	L	P	G	L	E	E	Α	Q	F	23
8	116	V	L	Ļ	Α	M	Α	F	D	R	Y	23
9	205	I	I	s	Α	Ι	G	L	D	s	L	23
10	221	L	L	I	L	K	Т	V	L	G	L	23
11	230	L	Т	R	E	Α	Q	Α	K	Α	F	23
12	13	Y	F	Ι	L	I	Ģ	L	P	G	L	22
13	40	Α	V	L	G	N	L	Т	I	I	Y	22
14	56	s	L	Н	Ε	p	M	Y	I	F	L	22
15	95	Q	F	D	Α	С	L	L	Q	I	F	22
16	215	L	I	s	F	s	Y	L	L	Ι	L	22
17	92	T	T	I	Q	F	D	Α	C	L	L	21
18	100	L	L	Q	I	F	Α	I	Н	Ş	L	21
19	103	I	F	Α	I	Н	s	L	s	G	M	21
20	296	K	T	K	E	Ι	R	Q	R	I	L	21
21	28	W	L	A	F	P	L	С	S	L	Y	20
22	131	P	L	R	Н	Α	T	V	L	T	L	20
23	59	E	P	М	Y.	I	F	Ļ	С	M	L	19
24	91	s	T	T	I	Q	F	D	A	C	L	19
25	202	L	Ι	V	I	I	S	Α	1	G	L	19
26	212	D	S	L	L	I	S	F	s	Y	L	19
27	272	P	L	P	V	I	Ļ	Α	N	Ι	Y	19
28	279	N	I	Y	L	L	V	P	P	٧	L	19
29	52	R	T	Ε	Н	S	L	Н	E	P	М	18
30	62	Y	I	F	L	С	M	L	S	G	I	18
31	72	D	I	L	I	s	Т	s	S	М	P	18
32	108	s	L	s	G	M	E	s	T	V	L	18
33	113	E	S	T	٧	L	L	Α	M	A	F	18
34	151	V	V	R	G	Α	Α	L	M	A	P	18
35	78	S	S	M	P	K	M	L	A	I	F	17
36	142	R	V	T	K	I	·G	٧	A	A	V	17
37	162	P	V	F	1	K	Q	L	P	F	С	17
38	164	F	I	K	Q	L	P	F	С	R	s	17
												33



	Pos	1	2	3	4	5	6	7	8	9	0	score
39	167	Q	L	P	F	С	R	s	N	I	L	17
40	185	D	V	M	K	L	A	С	D	D	1	17
41	248	Α	V	F	I	F	Y	V	P	F	Ι	17
42	253	Y	V	P	F	I	G	L	S	M	V	17
43	45	L	Т	I	I	Y	I	V	R	T	E	16
44	145	K	I	G	V	Α	A	V	V	R	G	16
45	198	V	V	Y	G	L	I	V	Ι	I	S	16
46	203	I	V	I	I	S	A	I	G	L	D	16
47	209	1	Ģ	L	D	S	L	L	I	S	F	16
48	213	S	L	L	I	S	F	S	Y	L	L	16
49	255	P.	F	Ι	G	L	s	M	V	Н	R	16
50	264	R	F	S	K	R	R	D	S	P	L	16
51	294	G	V	K	T	K	E	I	R	Q	R	16
52	16	L	Ι	G	L	P	G	L	E	E	Α	15
53	80	M	P	K	M	L	Α	I	F	W	F	15
54	114	S	T	V	L	L	A	M	A	F	D	. 15
55	155	Α	Ä	L	M	A	P	L	P	V	F	15
56	159	Α	P	L	P	V	F	I	K	Q	L	15
57	174	N	I	L	S	Н	S	Y	С	L	H	15
58	197	N	V	V	Y	G	L	I	V	I	I	15
59	210	G	L	D	S	L	L	I	S	F	S	15
60	214	L	L	I	S	F	S	Y	L	L	I	15
61	222	L	Ι	L	K	T	٧	L	G	L	T	15
62	240	G	T	С	V	S	Н	V	C	A	V	15
63	247	С	Α	V	F	I	F	Y	٧	P	F	15
64	286	₽	V	L	N	P	I	V	Y	G	V	15
65	298	K	E	Ι	R	Q	R	I	L	R	L	15

HLA-A3 decamers (SEQ ID NOS 2367-2432, respectively in order of appearance)

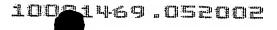
	Pos	1	2	3	4	5	6	7	8	9	0	score
1	136	Т	v	$\underline{\mathbf{r}}$	T	L	P	<u>R</u>	٧	T	K	31
2	287			N								28
3	223	I	L	$\underline{\mathtt{K}}$	Т	V	Ī	$\underline{\mathbf{G}}$	L	T	R	27
4	304	I	L	$\underline{\mathtt{R}}$	L	F	$\underline{\mathbf{H}}$	$\underline{\mathtt{v}}$	Α	T	Н	27
5	73	I	L	Ī	s	T	<u>s</u>	<u>s</u>	М	P	K	26
6	15	I	L	I	G	Ļ	<u>P</u>	G	L	E	E	23
7	40	Α	V	Ē	G	N	F	$\underline{\mathtt{T}}$	I	I	Y	23
8	150	Α	V	<u>v</u>	R	G	<u>A</u>	<u>A</u>	L	M	Α	23
9	258	G	L	<u>s</u>	М	V	$\underline{\mathbf{H}}$	$\underline{\mathtt{R}}$	F	S	K	23
10	18	G	L	<u>P</u>	G	L	<u>E</u>	<u>E</u>	A	Q	F	22
11	303	R	I	$\overline{\Gamma}$	R	L	$\underline{\mathbf{F}}$	<u>H</u>	V	A	Т	22
12	276	·I	L	A	N	I	<u>Y</u>	$\underline{\mathtt{r}}$	L	v	P	21
13	28	W	L	<u>A</u>	F	P	$\underline{\mathtt{L}}$	$\underline{\mathtt{c}}$	S	L	Y	20
14	115	T	V	ഥ	L	A	M	A	F	D	R	20
15	116	V	L	\overline{r}	A	M	<u>A</u>	F	D	R	Y	20
16	125	Y	V	A	I	С	<u>H</u>	<u>P</u>	L	R	Н	20
17	131	P	L	$\underline{\mathtt{R}}$	H	A	$\underline{\underline{T}}$	$\overline{\Lambda}$	L	T	L	20
18	144	T	K	<u>I</u>	G	V	A	A	V	V	R	20
												34



HLA-A3 decamers(SEQ ID NOS 2367-2432, respectively in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	0	score
19	156	Α	L	\underline{M}	A	P	$\overline{\mathbf{r}}$	P	V	F	I	20
20	195	R	v	N	V	V	Y	G	Ļ	I	V	20
21	35	S	L	<u>Y</u>	L	I	A	\underline{v}	L	G	N	19
22	272	P	L	<u>P</u>	V	I	Ŀ	A	N	I	Y	19
23	37	Y	L	Ī	Α	V	L	G	N	L	T	18
24	49	Y	I	V	R	T	E	H	s	L	Н	18
25	50	I	v	R	T	E	H	<u>s</u>	L	Н	Ē	18
26	108	s	L	S	G	М	E	s	\mathbf{T}	v	L	18
27	142	R	v	T	K	I	G	v	A	A	V	18
28	188	K	L	A	С	D	D	I	R	v	N	18
29	279	N	I	<u>Y</u>	L	L	\underline{v}	<u>P</u>	P	v	L	18
30	291	I	v	Y	G	V	K	T	K	Е	Ι	18
31	294	G	v	<u>K</u>	Т	K	E	Ī	R	Q	R	18
32	46	T	I	I	Y	I	V	R	Т	E	Н	17
33	102	Q	I	F	Α	I	H	<u>s</u>	L	S	G	17
34	151	v	v	R	G	Α	A	Ī	M	A	P	17
35	179	s	Y	C	L	Н	Q	D	v	M	K	17
36	203	I	v	I	I	s	A	Ī	G	L	D	17
37	204	v	I	I	s	A	I	G	L	D	s	17
38	220	Y	L	L	I	L	K	T	v	L	G	17
39	221	L	L	I	L	K	T	V	Ļ	G	L	17
40	227	V	L	G	L	Т	R	E	Α	Q	Α	· 17
41	242	С	v	s	Н	v	C	A	v	F	Ι	17
42	289	N	P	I	V	Y	G	v	K	T	K	17
43	38	L	I	A	V	L	G	N	L	T	I	16
44	85	Α	I	F	W	F	N	<u>s</u>	Т	T	I	16
45	147	G	v	A	Α	V	V	R	G	A	Α	16
46	198	V	v	<u>Y</u>	G	L	I	V	I	I	s	16
47	201	G	L	I	V	Ι	I	s	Α	I	G	16
48	214	L	L	I	s	F	s	Y	L	L	I	16
49	226	T	v	ī	G	L	T	R	E	A	Q	16
50	228	L	G	Ī	T	R	E	A	Q	A	K	16
51	229	G	L	T	R	E	A	Q	A	K	A	16
52	1	М	v	D	P	N	G	N	E	S	s	15
53	44	N	L	$\underline{\underline{\mathbf{T}}}$	I	Ι	$\underline{\mathtt{Y}}$	I	V	R	T	15
54	47	I	I	$\underline{\underline{Y}}$	Ι	V	\underline{R}	$\underline{\mathtt{T}}$	E	H	s	15
55	67	M	L	<u>s</u>	G	I	₫	Ī	L	I	s	15
56	72	D	I	$\overline{\Gamma}$	I	S	$\underline{\mathtt{T}}$	<u>s</u>	S	M	P	15
57	99	С	L	$\overline{\Gamma}$	Q	I	<u>F</u>	A	I	H	s	15
58	105	Α	I	$\overline{\mathbf{H}}$	S	L	S	$\underline{\underline{G}}$	M	E	s	15
59	145	K	I	\underline{G}	V	A	A	$\underline{\mathtt{v}}$	V	R	G	15
60	175	I	L	<u>s</u>	Н	S	$\underline{\underline{Y}}$	$\underline{\underline{c}}$	L	Н	Q	15
61	191	С	ם	$\overline{\mathtt{D}}$	I	R	$\overline{\Lambda}$	$\underline{\underline{N}}$	V	V	Y	15
62	208	Α	I	$\underline{\mathbf{G}}$	L	D	<u>s</u>	Ē	L	I	s	15
63	275	V	I	$\underline{\mathbf{r}}$	A	N	<u>I</u>	$\underline{\underline{Y}}$	L	L	V	15
64	281	Y	L	$\overline{\Gamma}$	V	P	<u>P</u>	$\underline{\mathtt{v}}$	L	N	P	15
65	299	E	I	$\underline{\mathtt{R}}$	Q	R	I	$\underline{\textbf{r}}$	R	L	F	15
66	306	R	L	<u>F</u>	H	V	<u>A</u>	$\underline{\underline{\mathbf{T}}}$	Н	A	s	15

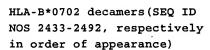
HLA-B*0702 decamers(SEQ ID



NOS 2433-2492, respectively in order of appearance)

	III OIU			ΡP		La	-	e, ^	_	_	
	Pos	1 2		4	5	6	7	8	9	0	score
1	159	A P		P	V	F	Ι	K	Q	L	23
2	59	E P	M	Y	Ι	F	L	С	M	L	22
3	273	L P	V	I	L	A	N	Ι	Y	L	20
4	3	D P	N	G	N	Ε	S	S	A	Т	19
5	130	H P	L	R	Н	A	T	V	L	Т	19
6	140	L P	R	V	T	K	Ι	G	V	A	19
7	161	L P	V	F	1	K	Q	L	P	F	19
8	31	F P	L	С	S	L	Y	L	I	Α	18
9	271	SP	L	P	V	I	Ļ	A	N	I	18
10	80	M P	K	М	L	Α	I	F	W	F	16
11	108	SI	s	G	M	E	s	T	v	L	16
12	131	ΡI	R	Н	Α	Т	V	L	Т	L	15
13	264	R F	s	K	R	R	D	s	P	L	15
14	33	L C	S	L	Y	L	Ι	Α	v	L	14
15	109	LS	G	М	Ε	s	Т	v	L	L	14
16	152	VR	G	Α	Α	L	М	Α	P	L	14
17	205	II		Α	I	G	L	D	s	L	14
18	215	LI		F	s	Y	L	L	I	L	14
19	268	RR		s	P	L	P	v	I	L	14
20	29	LA		P	L	C	s	L	Y	L	13
21	148	V A		V	v	R	G	A	A	L	13
22	156	AI		A	P	L	P	v	F	I	13
23	193	DI		v	N	v	v	Y	G	L	13
24	221	LI		L	K	T	v	L	G	L	13
	298							L			
25				R	Q	R	I		R	L	13
26	7	NE		S	A	Т	Y	F	I	L	12
27	19	LF		Ь	E	E	A	Ō	F	W	12
28	24	EA		F	W	L	A	F	P	L	12
29	119	AM		F	D	R	Y	V	A	I	12
30	129	CH		L	R	H	A	T	v	L	12
31	206	I S		I	G	L	D	S	L.		12
32	219	SY		L	I	ь	K	T	V	L	12
33	279	ИІ		L	L	V -	P	P	V	L	12
34	285	PP		L	N	P	I	V	Y	G	. 12
35	8	E S		A	T	Y	F	I	L	I	11
36	13	Y F		L	I	G	L	P	G	L	1,1
37	27	F W		A	F	P	L	С	S	L	11
38	48	ΙY		V	R	Т	Ė	Н	S	L	11
39	56	SI		Ε	P	M	Y	I	F	L	11
40	65	L C		L	S	G	Ι	D	I	L	11
41	75	I S		S	S	M	P	K	M	L	11
42	77	T S		M	P	K	М	L	A	I	11
43	91	SI	Т	Ι	Q	F	D	A	С	L	11
44	123	D R	Y	V	A	I	С	H	P	L	11
45	142	R V		K	I.	G	V	A	A	V	11
46	180	ΥC		Н	Q	D	V	M	K	L	11
47	190	A C	D	D	I	R	V	N	v	V	11
48	212	D S	L	L	I	s	F	s	Y	L	11
49	234	ΑÇ	A	K	Α	F	G	T	C	V	11
50	242	C V	S	Н	V	С	A	V	F	I	11
51	248	ΑV	F	I	F	Y	V	P	F	I	11
											36





Pos		1	2	3	4	5	6	7	8	9	0	score
52	250	F	I	F	Y	V	P	F	I	G	Ļ	11
53	254	V	P	F	I	G	L	S	M	V	Н	11
54	266	S	K	R	R	D	s	P	L	P	V	11
55	267	K	R	R	D	s	P	L	P	V	I	11
56	269	R	D	s	P	L	P	V	I	L	A	11
57	278	Α	N	I	Y	L	L	V	P	P	V	11
58	284	V	P	P	V	L	N	P	I	v	Y	11
59	289	N	P	I	٧	Y	G	٧	K	T	K	11
60	296	K	T	K	E	I	R	Q	R	I	L	11

Please replace Table XXVIII, beginning at page 205, line 1, with the following rewritten

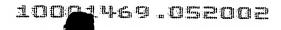
Table XXVIII:

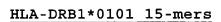
-- Table XXVIII:

HLA Class II Epitopes (sample 15-mer length)

(SEQ ID NOS 2493-2595, respectively in order of appearance) HLA-DRB1*0101 15-mers

	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
1	200	Y	.G	L	I	v	I	I	s	A	Ι	G	L	D	S	L	36
2	68	L	s	G	I	D	I	L	I	S	Т	s	s	М	₽	K	34
3	62	Y	I	F	L	C	M	L	s	G	I	D	I	L	I	s	33
4	103	I	F	Α	I	Н	S	L	S	G	M	E	s	Т	v	L	32
5	45	L	Т	I	I	Y	I	V	R	T	E	Н	S	L	Н	E	31
6	193	D	I	R	v	N	v	V	Y.	G	L	I	V	I	I	s	31
7	277	L	Α	N	I	Y	L	L	V	P	P	V	L	N	P	I	31
8	97	D	Α	С	L	L	Q	I	F	A	I	Н	s	L	s	G	30
9	106	I	Н	S	L	S	G	M	E	S	Т	V	L	L	Α	М	30
10	240	G	T	C	V	S	H	V	С	A	V	F	I	F	Y	V	30
11	10	S	Α	T	Y	F	I	L	I	G	L	P	G	L	Е	E	29
12	289	N	P	I	v	Y	G	V	K	T	K	E	I	R	Q	R	29
13	11	A	Т	Y	F	I	L	I	G	L	Р	G	L	E	E	A	28
14	250	F	I	F	Y	V	P	F	1	G	L	S	М	V	Н	R	27
15	140	L	P	R	V	T	K	I	G	V	Α	Α	V	V	R	G	26
16	183	H	Q	D	V	M	K	Ļ	Α	C	D	D	I	R	V	N	26
17	217	S	F	S	Y	L	L	Ι	L	K	T	V	L	G	\mathbf{L}	T	26
18	16	L	I	G	L	P	G	L	E	E	A	Q	F	W	L	A	25
19	24	E	Α	Q	F	W	L	A	F	P	L	С	S	L	Y	L	25
20	36	L	Y	L	I	Α	V	L	G	N	L	T	I	I	Y	I	25
21	70	G	I	D	I	L	I	S	T	S	S	M	P	K	М	L	25
22	111	G	M	E	S	Т	V	L	L	A	М	Α	F	D	R	Y	25
23	148	V	Α	A	V	V	R	G	Α	A	L	M	Α	P	L	P	25
24	162	P	V	F	I	K	Q	L	Р	F	C	R	s	N	I	L	25
25	197	N	V	V	Y	G	L	I	V	I	I	S	Α	I	G	L	25
26	211	Ļ	D	S	L	L	I	S	F	S	Y	L	L	I	L	K	25





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	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	scor	е
27	218	F	S	Y	L	L	I	L	K	T	v	L	G	L	T	R		25
28	13	Y	F	Ī	L	I	G	L	P	G	L	E	E	Ā	ō	F		24
29	30	A	F	P	L	C	S	L	Y	L	I	A	V	L	G	N		24
30	39	I	A	v	L	G	N	L	т	I	Ι	Y	Ι	V	R	Т		24
31	77	T	S	S	M	P	K	М	L	Α	I	F	W	F	N	s		24
32	85	A	I	F	W	F	N	S	Т	T	Ι	Q	F	D	Α	С		24
33	137	v	L	Т	L	P	R	V	Т	ĸ	Ι	G	V	Α	Α	V	:	24
34	151	v	V	R	G	Α	A	L	M	A	P	L	P	V	F	I	:	24
35	161	L	P	٧	F	Ι	ĸ	Q	L	P	F	С	R	S	N	I	:	24
36	196	v	N	V	V	Y	G	L	Ι	V	Ι	Ι	S	A	Ι	G		24
37	202	L	Ι	V	I	Ι	S	A	Ι	G	L	D	S	L	L	I		24
38	208	A	Ι	G	L	D	S	L	L	Ι	S	F	S	Y	L	L		24
39		A	V	F	I	F	Y	V	P	F	Ι	G	L	S	M	V		24
40	251	I	F	Y	V	P	F	I	G	L	S	M	V	H	R	F		24
41	83	M	Г	A	I	F	W	F	N	S	T	T	Ι	Q	F	D		23
42	101		Q	I	F	A	I	H	S	L	S	G	M	E	S	T		23
43 44	165	I	K	Q	L	P	F	C	R	S	И	I S	L	S	H	S		23 23
45	203 221	I L	r V	I	L	S	A T	I V	G L	L G	D L	T	L R	L E	I A	S Q		23 23
46	278	A	И	Ī	Y	L	L	v	Ъ	P	A P	L	N	P	I	V		23
47	270	F	M	L	A	F	P	L	C	S	L	Y	L	I	A	V		22
48	35	s	L	Y	L	Ι	A	v	L	G	N	L	Т	I	I	Y		22
49		м	Y	Ī	F	L	С	М	L	S	G	I	D	I	L	I		22
50	65	L	C	M	L	s	G	I	D	I	L	I	s	Т	s	s		22
51	80	M	P	K	М	L	A	I	F	W	F	N	S	Т	Т	I		22
52	145	ĸ	I	G	v	Α	A	V	V	R	G	Α	Α	L	M	Α		22
53	146	I	G	v	A	Α	v	V	R	G	Α	Α	L	М	Α	P		22
54	154	G	Α	A	L	М	A	P	L	P	٧	F	I	K	Q	L		22
55	205	I	Ι	S	A	I	G	L	\mathfrak{D}	S	L	L	Ι	S	F	s		22
56	243	v	S	Н	v	С	A	V	F	I	F	Y	V	P	F	I	:	22
57	270	D	S	P	L	P	V	Ι	L	A	N	I	Y	L	L	V		22
58	274	P	V	Ι	L	Α	N	Ι	Y	L	L	V	P	P	V	L		22
59		Y	L	L	V	P	P	V	L	N	P	Ι	V	Y	G	V		22
60	34	С	S	L	Y	L	Ι	A	V	L	G	N	L	Т	.I	I		21
61	69	S	G	Ι	D	Ι	L	Ι	S		.S	S	M	P	K	M		21
62		v		G			L		A	P	L	P	V	F	I	K		21
	299	E	I	R	Q	R	I	L	R	L	F	H	V	A	T	H		21
64 65		L	L	Q	I	F	A	I	H	S	L	S	G	M	E	S		20
66		A P	T	V	L	T	L	P	R	V	T	K	I	G	V G	A ^		20 20
67		C	R D	V D	T	K R	I V	G N	V V	A V	A Y	V G	V L	R I	v	A		20
68		V	Y	G	L	I	v	I	I	S	A	I	G	L	D	s		20
69		v	Н	R	F	s	ĸ	R	R	D	S	P	L	P	V	I		20
70		s	P	L	P	v	I	L	A	N	I	Y	L	L	v	P		20
71		W	L	A	F	P	L	c	s	L	Y	L	I	A	v	L		19
72		н	E	P	M	Y	I	F	L	C	М	L	s	G	I	D		19
73	59	E	P	M	Y	Ī	F	L	C	М	L	s	G	I	D	I		19
74	60	P	M	Y	I	F	L	С	М	L	s	G	I	D	I	L		19
75		A	С	L	L	Q	I	F	A	I	Н	s	L	s	G	M		19
76	215	L	I	s	F	s	Y	L	L	I	L	K	Т	V	L	G	•	19
77	219	S	Y	L	L	I	L	K	Т	V	L	G	L	Т	R	E		19
														_				

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HLA-DRB1*0101 15-mers

	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
78	228	L	G	L	T	R	E	Α	Q	A	K	Α	F	G	Т	С	19
79	232	R	Ε	Α	Q	Α	ĸ	Α	F	G	Т	С	V	s	Н	V	19
80	246	v	С	Α	v	F	I	F	Y	v	P	F	I	G	L	s	19
81	297	T	K	E	I	R	Q	R	I	L	R	L	F	Н	V	Α	19
82	3	D	P	N	G	N	E	s	s	A	Т	Y	F	I	L	I	18
83	14	F	I	L	I	G	L	P	G	L	E	E	Α	Q	F	W	18
84	25	A	Q	F	W	L	A	F	P	L	С	S	L	Y	L	I	18
85	42	L	G	N	L	T	I	I	Y	I	٧	R	Т	E	Н	s	18
. 86	46	T	I	I	Y	I	v	R	Т	E	Н	s	L	Н	E	Р	18
87	78	S	S	M	P	K	M	L	A	I	F	W	F	N	S	Т	18
88	84	L	Α	I	F	W	F	N	S	T	Т	I	Q	F	D	A	18
89	89	P	N	S	T	T	I	Q	F	D	A	С	L	L	Q	Ι	18
90	93	T	I	Q	F	D	A	C	L	L	Q	I	F	Α	I	Н	18
91	115	T	V	L	L	A	M	Α	F	D	R	Y	٧	Α	I	С	18
92	119	A	М	Α	F	D	R	Y	V	A	I	С	Н	Р	L	R	18
93	127	A	I	С	H	Р	L	R	Н	A	T	V	L	Т	L	Ρ	18
94	129	C	Н	P	L	R	H	Α	T	v	L	T	L	P	R	V	18
95	147	G	V	Α	A	V	v	R	G	A	A	L	M	А	₽	L	18
96	149	A	A	V	V	R	G	Α	Α	L	M	Α	P	L	P	V	18
97	216	·I	S	F	S	Y	L	L	I	L	K	Т	V	L	G	L	18
98	227	v	Ļ	G	L	T	R	E	A	Q	A	K	A	F	G	Т	18
99	249	v	F	I	F	Y	v	P	F	I	G	L	S	М	V	Н	18
100	253	Y	V	P	F	I	G	L	S	M	V	Н	R	F	S	K	18
101	284	v	P	P	V	L	N	P	I	v	Y	G	V	K	Т	K	18
102		P	V	L	N	P	I	V	Y	G	V	K	T	K	E	Ι	18
103	303	R	Ι	L	R	L	F	Н	V	A	T	H	A	S	E	P	18

HLA-DRB1*0301 (DR17) 15-mers (SEQ ID NOS 2596-2671, respectively in order of appearance)

	D																
	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
1	16	L	I	G	L	P	G	L	E	E	Α	Q	F	W	L	A	26
2	206	I	S	Α	I	G	L	D	S	L	L	I	S	F	s	Y	23
3	91	S	\mathbf{T}	Т	I	Q	F	D	Α	C	L	L	Q	I	F	Α	22
4	117	L	L	Α	M	Α	F	D	R	Y	V	Α	I	C	H	P	22
5	38	L	I	Α	v	L	G	N	L	T	I	I	Y	I	V	R	21
6	179	S	Y	С	L	Н	Q	D	V	M	K	L	Α	С	D	D	21
7	211	L	D	S	L	L	I	S	F	s	Y	L	L	I	L	K	21
8	219	S	Y	L	L	I	L	K	Т	v	L	G	L	T	R	E	21
9	272	P	L	P	v	I	L	Α	N	I	Y	L	L	V	P	P	21
10	26	Q	F	W	L	Α	F	P	L	C	s	L	Y	L	I	A	20
11	114	S	Т	V	L	L	A	M	$\cdot \mathbf{A}$	F	D	R	Y	٧	Α	I	20
12	129	C	Н	P	L	R	H	Α	Т	v	L	T	L	P	R	V	20
13	134	H	Α	T	v	L	T	L	P	R	V	T	K	I	G	V	20
14	186	v	М	K	L	Α	C	D	D	I	R	V	N	V	V	Y	20
15	200	Y	G	L	I	V	I	Ι	s	A	I	G	L	Đ	s	L	20
16	270	D	S	P	L	P	v	I	L	A	N	I	Y	L	L	V	20
17	297	T	K	E	I	R	Q	R	I	L	R	L	F	Н	V	A	20
18	11	A	Т	Y	F	I	L	I	G	L	P	G	L	E	E	Α	19
19	54	E	Н	S	L	Н	E	P	M	Y	Ι	F	L	С	M	L	19
														3	39		

Serial No. 10/001,469 Docket No. 511582002420 HLA-DRB1*0301 (DR17) 15-mers
(SEQ ID NOS 2596-2671, respectively in
order of appearance)

Pos	_	_	_		_	_	_	_	_	_	_	_	_		_	score
20 100	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	. 10
20 106	I	H	S	L	S	G	M	E	S	T	V	L	L	A	M	19
21 165	I	K	Q	L	P	F	C	R	s	N	I	L	S	Н	S	19
22 191	C	D	D	I	R	V		V	V	Y	G	L	I	V	Ι	19
23 203	I	V	Ι	I	S	A	I	G	L	D	S	L	Г	I	S	19
24 213	S	L	L	I	S	F	S	Y	L	L	Ι	L	K	T	V	19
25 224	L	K	Т	V	L	G	L	Т	R	Ε	A	Q _.		K	A	19
26 227	V	L	G	L	Т	R	E		_			A	F	G	Т	19
27 248		V	F	Ι	F	Y	۷		F	Ι	G	L	S	M	V	19
28 254	V	P	F	I	G	L	S	M	V	Η	R	F	S	K	R	19
29 277	L	A	N	I	Y	L	L	V	₽	Ρ	٧	L	N	Ρ	Ι	19
30 36	L	Y	L	Ι	A	V	L	G	N	L	Т	I	I	Y	Ι	18
31 93	T	Ι	Q	F	D	A	С	L	L	Q	I	F	A	I	H	18
32 98	A	С	L	L	Q	I	F	Α	I	H	S	L	S	G	M	18
33 125	Y	V	Α	I	C	H	P	L	R	Н	Α	Т	V	L	T	18
34 158	M	A	₽	L	P	V	F	I	K	Q	L	P	F	С	R	18
35 187	M	K	L	A	C	D	D	I	R	V	N	V	V	Y	G	18
36 217	S	F	S	Y	L	L	I	L	K	Т	V	L	G	L	Т	18
37 225	K	Т	V	L	G	L	T	R	E	Α	Q	A	K	Α	F	18
38 281	Y	L	L	v	P	P	V	L	N	P	I	V	Y	G	V	18
39 288	L	N	P	I	V	Y	G	V	K	T	K	E	I	R	Q	18
40 18	G	L	P	G	L	E	E	Α	Q	F	W	L	A	F	P	17
41 44	N	L	Т	I	Ι	Y	I	V	R	T	Ε	H	S	L	Н	17
42 145	K	Ι	G	v	A	A	V	V	R	G	A	A	L	M	Α	17
43 159	A	P.	L	P	V	F	I	K	Q	L	P	F	С	R	s	17
44 256	F	Ι	G	L	S	M	V	Н	R	F	s	K	R	R	D	17
45 259	L	s	М	v	Н	R	F	s	K	R	R	D	s	Р	L	17
46 137	v	L	Т	L	P	R	V	Т	K	I	G	V	Α	Α	V	16
47 262	v	Н	R	F	S	K	R	R	D	s	Р	L	P	v	I	16
48 294	G	٧	K	T	K	E	I	R	Q	R	I	L	R	L	F	16
49 46	T	I	I	Y	I	v	R	Т	E	Н	s	L	Н	E	P	15
50 51	V	R	\mathbf{T}	E	Н	S	L	Н	E	P	М	Y	I	F	L	15
51 172	R	s	N	I	L	S	Η	S	Y	С	L	H	Q	D	V	15
52 189	L	A	C	D	D	I	R	V	N	V	V	Y	G	L	I	15
53 212	D	s	L	L	I	s	F	s	Y	L	L	I	L	K	T	15
54 218	F	s	Y	L	Ĺ	I	L	K	T	V	L	G	L	Т	R	15
55 271	s	P	L	P	٧	I	L	Α	N	I	Y	L	L	v	P	15
56 279	N	I	Y	L	L	v	P	Р	v	L	N	P	I	V	Y	15
57 12	T	Y	F	I	L	I	G	L	P	G	L	E	E	Α	Q	14
58 35	S	L	Y	L	I	A	V	L	G	N	L	Т	I	I	Y	14
59 64	F	L	С	M	L	S	G	I	D	I	L	I	s	Т	s	14
60 140	L	P	R	v	Т	ĸ	I	G	v	Α	Α	V	v	R	G	14
61 273	L	Р	v	I	L	A	N	I	Y	L	L	v	Р	P	V	14
62 301	R	Q	R	I	L	R	L	F	Н	v	Α	Т	Н	Α	S	14
63 13	Y	F	I	L	I	G	L	Р		L	E	E	Α	Q	F	13
64 47	I	I	Y		v	R	Т	E	н	s	L	Н	E	P	M	13
65 71	I	D	I	L	I	S	Т	S	S	М	P	K	M	L	Α	13
66 80	M	P			L	A	Ι		W	F	N	s	Т	Т	I	13
67 109				M		s		v		L		М	A	F	D	13
68 113	E								A		D		Y	v		13
	-	_	·		-	-	-	-	_	_		-		١٨		

HLA-DRB1*0301 (DR17) 15-mers (SEQ ID NOS 2596-2671, respectively in order of appearance)

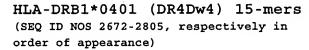
	Pos													_			score
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	
69	135	A	T	٧	L	Т	L	P	R	v	Т	K	I	G	V	Α	13
70	195	R	٧	N	v	V	Y	G	L	I	V	I	Ι	S	A	I	13
71	202	L	I	V	I	I	S	Α	I	G	L	D	S	L	L	Ί	13
72	220	Y	L	L	I	L	K	T	v	L	G	L	T	R	E	Α	13
73	221	L	L	I	L	K	T	V	L	G	L	Т	R	E	Α	Q	13
74	264	R	F	s	K	R	R	D	s	P	L	P	V	I	L	Α	13
75	280	I	Y	L	L	V	P	P	V	L	N	Ρ	Ι	V	Y	G	. 13
76	302 -	Q	R	I	L	R	L	F	Н	\mathbf{v}	Α	Т	Н	Α	s	Ε	13

HLA-DRB1*0401 (DR4Dw4) 15-mers (SEQ ID NOS 2672-2805, respectively in order of appearance)

	Pos	1		2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
1	36	I		Z Y	L	I	A	v	L	G	N	L	Т	I	I	Y	I	26
2	4.5	I		T	I	I	Y	ĭ	v	R	T	E	Н	s	L	Н	E	26
3	68	I		s	G	I	D	I	L	I	s	T	S	s	М	P	K	26
4	83	M		L	Α	I	F	W	F	N	s	Т	Т	I	0	F	D	26
5	134	H		– A	Т	v	L	T	L	P	R	v	Т	K	Ĭ	G	V	26
6	145	K		I	G	v	A	A	v	v	R	Ġ	A	A	L	М	A	26
7	224	I		ĸ	Т	v	L	G	L	Т	R	E	Α	0	A	K	Α	. 26
8	227	v		L	G	L	T	R	E	A	Q	A	K	Ã	F	G	Т	26
9	256	F		I	G	L	s	M	v	Н	R	F	s	ĸ	R	R	D	26
10	281	Y		L	L	v	P	P	v	L	N	Р	Ι	٧	Y	G	v	26
11	289	N	1	Р	I	v	Y	G	v	K	T	K	E	I	R	Q	R	26
12	301	R	: (Q	R	I	L	R	L	F	н	٧	Α	Т	Н	A	s	26
13	11	A	. ,	Т	Y	F	Ι	L	I	G	L	P	G	L	Ε	E	Α	22
14	24	E	1	A	Q	F	W	L	A	F	P	L	С	s	L	Y	L	22
15	25	A	. (Q	F	W	L	A	F	P	L	С	s	L	Y	L	Ι	22
16	34	C	:	S	L	Y	L	I	A	٧	L	G	N	L	T	I	I	22
17	84	I	i	A	I	F	W	F	N	S	T	T	I	Q	F	D	Α	22
18	122	F	1	D	R	Y	V	A	I	C	H	P	L	R	Н	A	Т	22
19	197	N	'	V	٧	Y	G	L	I	V	I	Ι	S	A	Ι	G	L	22
20	215	I		Ι	S	F	S	Y	L	L	I	L	K	T	٧	L	G	22
21	217	S	;	F	S	Y	L	L	I	L	K	Т	V	L	G	L	Т	22
22	250	F	'	Ι	F	Y	V	P	F	Ι	G	L	S,	M	٧	Н	R	22
23	278	A		N	Ι	Y	L	L	V	P	₽	٧	L	N	P	Ι	V	22
24	19	L		Ρ	G	L	Ε	E	A	Q	F	W	L	A	F	P	Ļ	20
25	30	A		F	P	L	С	S	L	Y	L	Ι	Α	V	L	G	N	20
26	33	I		C	S	L	Y	L	I	A	V	L	G	N	L	T	Ι	20
27	35	S		L	Y	L	I	A	V	Г	G -	N	L	T	Ι	I	Y	20
28	39	I		A	V	L	G	N	L	Т	I	Ι	Y	I	V	R	T	20
29	42	L		G -	N	L	T	I	I	Y	I	V -	R	T	E	H	S	20
30	44	N		L	T	I	I	Y	I	V	R	T	E	H	S	L	Н	.20
31	48	I		Y	I	V	R	T	E	H	S	L	H	E	P	M	Y	20
32	58	H		E	P	M	Y	I	F	L	C	M	Г	S	G	I	D	20
33	62	·¥		I	F	L	С	M	L	S	G	Ι	D	Ι	L	I	S	20
34	65	I	-	C	M	L	S	G	I	D	I	L	I	S	T	S	S	20
35	71	I		D	Ι	L	Ι	S	T	S	S	М	P	K	M	L	Α	20

Serial No. 10/001,469 Docket No. 511582002420 HLA-DRB1*0401 (DR4Dw4) 15-mers (SEQ ID NOS 2672-2805, respectively in order of appearance)

	Dog.															•	220×0
	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
36	80	M	Ρ	K	M	L	A	I	F	W	F	N	s	T	Т	Ι	20
37	81	P	K	M	L	Α	I	F	W	F	N	s	\mathbf{T}	\mathbf{T}	I	Q	20
38	91	S	Т	Т	I	Q	F	D	Α	C	L	L	Q	Ι	F	Α	20
39	97	D	Α	С	L	L	Q	I	F	A	I	Н	s	L	S	G	20
40	98	A	С	L	L	Q	I	F	Α	I	Н	s	L	s	G	М	20
41	100	L	L	Q	I	F	Α	I	Н	s	L	s	G	·M	E	s	20
42	103	I	F	A	I	Н	s	L	s	G	М	E	s	Т	V	L	20
43	106	I	Н	s	L	s	G	M	E	s	Т	v	L	L	Α	М	20
44	115	T	V	L	L	Α	M	Α	F	D	R	Y	v	Α	I	С	20
45	117	Ŀ	Ĺ	A	M	A	F	D	R	Y	v	Ã	1	C	H	P	20
46	125	Y	v	Α	I	С	н	P	L	R	Н	Α	т	v	L	Т	20
47	129	C	Н	P	L	R	н	А	Т	v	L	т	L	Р	R	v	20
48	137	V	L	Т	L	P	R	v	т	ĸ	I	G	v	Α	Α	v	20
49	140	L	P	R	v	Т	ĸ	I	G	v	A	A	v	٧	R	G	20
50	155	A	A	L	M	Ā	P	L	P	v	F	I	ĸ	Q	L	P	20
51	162	P	v	F	I	K	Q	L	P	F	C	R	S	N	I	L	20
52	165	Ī	ĸ	ō	L	P	F	c	R	s	N	I	L	s	Н	s	20
53	179	s	Y	C	L	Н	Q	D	V	M	K	L	A	C	D	D	20
54	183	Н	ō	D	v	М	K	L	A	C	D	D	ı	R	v	N	20
55	186	v	M	K	L	Α	C	D	D	I	R	v	N	V	v	Y	20
56	193	D	I	R	v	N	v	v	Y	G	L	I	V	I	I	s	20
57	196	v	N	V	v	Y	G	L	I	v	I	I	S	A	I	G	20
58	199	v	Y	G G	L	I	v	I	I	s	A	I	G	L	D	S	20
59	200	Y	G	L	I	v	I	I	s	A	I	G	L	D	S	L	20
60	200	· L	I	A P	I	I	s	A	I	G	L	D	S	ь	L	I	20
61	202	I	Λ	v I	I	S	A	I	G	L	D	S	L	L	I	S	20
62	203	I	s	A	I	G	L	D	S	L	L	I	S	F	S	Y	20
63	208	A	I	G	L	D	S	L	L	I	S	F	S	Y	L	L	20
64	211	L	D	S	L	L	I	S	F	S	Y	L	L	I	L	K	20
65	211	D	s	L	L	I	s	F	S	Y	L	L	I	L	К	Т	20
66	212	F	S	Y	L	L	I	L	K	T	V	L	G	L	Т	R	20
67	240	G	T	C	V	S	н	A T	C	A	v	F	I	F	Y	V	20
68	243	v	s	Н	v	C	A	v	F	I	F	Y	V	P	F	I	20
69	243	v	C	A	v	F	I	F	Y	v	P	F	ĭ	G	L	S	20
70	248	A	V	F	I	F	Y	v	P	F	I	G	L	s	М	V	20
			_		v	_	_	_		_	_				_		
71 72	251	I	F	Y P	v	P	F	I	G	L	S	M L	V	H V	R P	F P	20 20
73	272 277	P L	L A	N	I	Y	L	A L	N V	P	P	A P	L L	N	P	I	20
74		P	P	N N	L	N	P	I		Y	G	v	К	T	K	E	20
75	285	G	L	P	G	L	E	E	A	Q	F	W	L	A	F	P	18
76	18 27	F	W	L	A	F	P	L	C	S	L		L	I		V	18
											S	Y					
77	69	S	G	I	D	I	L	I	S	T		S	M	P	K	M	18
78	94	I	Q	F	D	A	C	L A	L	Q	Ι	F	A	I	H	S	18
79	99	C	L	L	Q	I	F		I	H	S	L	S	G	M	E	18
80	107	H	S	L	S	G	M	E	S	T	V	L	L	A	M	A	18
81	116	V	L	L	A	M	A	F	D	R	Y	V	A	I	C	H	18
82	126	V	A	I	C	H	P	L	R	H	A	T	V	L	T	L	18
83	164	F	I	K	Q	L	P	F	C	R	S	N	I	L	S		18
84	176	L	s	Н	S	Y	C	L	Н	Q	D	V	M		ь 12	A	18
															. /		



	Pos																score
	FUS	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	BCOLE
85	187	M	K	L	Α	C	D	D	Ι	R	V	N	V	V	Y	G	18
86	205	I	I	S	A	Ι	G	L	D	S	L	L	Ι	S	F	S	18
87	233	E	Α	Q	Α	K	Α	F	G	T	С	V	S	H	V	С	18
88	237	K	Α	F	G	Т	C	V	S	H.	V	С	A	V	F	Ţ	18
89	271	S	P	L	P	٧	Ι	L	Α	N	Ι	Y	\mathbf{L}	L	V	P	18
90	293	Y	G	V	K	T	K	E	Ι	R	Q	R	I	L	R	L	18
91	294	G	V	K	T	K	E	I	R	Q	R	Ι	L	R	L	F	18
92	10	S	Α	Т	Y	F	I	L	Ι	G	L	P	G	L	E	E	16
93	28	W	L	A	F	P	L	C	S	L	Y	L	Ι	Α	V	L	16
94	59	E	P	M	Y	I	F	L	С	M	Ļ	\$	Ģ	I	D	I	16
95	61	M	Y	I	F	L	C	M	L	S	G	I	D	I	L	I	16
96	85	A	I	F	W	F	N	S	T	T	I	Q	F	D	A	С	16
97	101	L	Q	I	F	Α	I	H	S	L	S	G	M	E	S	\mathbf{T}	16
98	177	S	Н	S	Y	С	L	H	Q	D	٧٠	M	K	L	A	С	16
99	236	A	K	A	F	G	T	C	V	S	H	V	С	Α	V	F	16
100	249	v	F	I	F	Y	v	P	F	I	G	L	S	M	V	Н	16
101	253	Y	V	P	F	I	G	L	S	M	V	Н	R	F	S	K	16
102	13	Y	F	I	L	I	G	L	P	G	L	E	E	Α	Q	F	14
103	14	F	I	L	I	G	L	P	G	L	E	E	A	Q	F	W	14
104	16	L	I	G	L	P	G	L	E	E	Α	Q	F	W	L	Α	14
105	38	L	I	Α	v	L	G	N	L	T	I	I	Y	I	V	R	14
106	47	I	I	Y	I	V	R	T	E	H	S	L	H	E	P	M	14
107	54	E	Н	S	L	H	E	P	M	Y	Ι	F	Ļ	C	M	Ļ	14
108	60	P	M	Y	I	F	L	C	M	L	S	G	I	D	I	L	14
109	64	F	L	С	M	L	S	G	I	D	I	L	I	S	T	S	14
110	70	G	I	D	I	Ļ	I	S	T	S	S	M	P	K	M	L	14
111	72	D	I	L	I	S	T	S	S	M	P	K	M	L	Α	Ι	14
112	109	L	S	G	M	Ε	S	T	V	L	L	Α	M	Α	F	D	14
113	113	E	S	Т	v	L	L	A	M	A	F	D	R	Y	V	A	14
114	135	A	T	V	L	Т	L	₽	R	V	T	K	Ι	G	V	A	14
115	143	V	Т	K	I	G	V	A	A	V	V	R	G	A	A	L	14
116	148	V	Α	A	V	V	R	G	A	A	L	M	A	P	L	P	14
117	149	A	Α	V	v	R	G	A	Α	L	M	Α	Р	L	Р	V	14
118	154	G	A	A	L	M	A	P	L	P	V	F	Ι	K	Q	L	14
119	158	M	A	P	L	Р	V	F	Ι	K	Q	L	P	F	C	R	14
120	173	S	N	Ι	L	S	H	S	Y	C	L		Q	D	V	M	14
121	184	Q	D	V	M	K	L	A	С	D	D	Ι	R	V	N	V	14
122	191	C	D	D	I	R	V	N	V	V	Y	G	L	I	V	Ι	14
123	195	R	V	N	V	V	Y	G	L	I	V	Ι	Ι	S	A	Ι	14
124	213	S	L	L	I	S	F	S	Y	L	L	Ι	L	K	T	V	14
125	220	Y	L	L	I	Ļ	K	T	V	L	G	L	Т	R	E	A	14
126	221	L	L	Ι	L	K	T	V	L	G	L	Т	R	E	A	Q	14
127	225	K	Т	V	L	G	L	T	R	E	A	Q	A	K	A	F	14
128	259	L	S	M	V	Н	R	F	S	K	R	R	D	S	P	L	14
129	270	D	S	P	L	P	V	I	L	A	N	Ι	Y	L	L	V	14
130	273	L		V	I	L	A	N	Ι	Y	L	L	V	₽	P	V	14
131	274	P	V	I	L	Ą	N	I	Y	L	L	V	P	Ρ	V	L	14
132	280	I	Y	L	L	V		P	V	L	N	P	Ι	V	Y	G	14
133	284	V	P	P	V	L	N	P	Ι	V	Y	G	V		T	K	14
															. 4		

HLA-DRB1*0401 (DR4Dw4) 15-mers (SEQ ID NOS 2672-2805, respectively in order of appearance)

Pos 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 134 302 Q R I L R L F H V A T H A S E 14

HLA-DRB1*1101 15-mers
(SEQ ID NOS 2806-2866, respectively
in order of appearance)

	Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
1	145	K	I	G	v	Α	A	V	v	R	G	Α	Α	L	M	Α	28
2	122	F	D	R	Y	v	Α	I	C	н	Р	L	R	Н	Α	т	25
3	217	ន	F	S	Y	L	L	I	L	ĸ	Т	ν	L	G	L	\mathbf{T}	25
4	197	N	v	V	Y	G	L	I	v	I	I	s	Α	I	G	L	24
5	10	s	Α	Т	Y	F	I	L	I	G	L	P	G	L	E	E	23
6	255	P	F	I	G	L	s	M	V	H	R	F	s	K	R	R	23
7	44	N	L	Т	I	I	Y	I	V	R	T	E	Н	s	L	Н	22
8	59	E	P	M	Y	I	F	L	С	M	L	s	G	I	D	I	22
9	158	M	Α	P	L	P	V	F	I	ĸ	Q	L	Р	F	С	R	22
10	237	K	Α	F	G	Т	C	V	s	H	V	С	Α	V	F	I	22
11	74	L	I	S	T	s	s	М	P	ĸ	M	L	A	I	F	W	21
12	134	H	Α	\mathbf{T}	v	\mathbf{L}	T	L	P	R	V	T	K	I	G	V	20
13	137	v	L	Т	L	Р	R	V	Т	ĸ	I	G	V	Α	Α	V	20
14	162	P	V	F	I	K	Q	L	P	F	С	R	S	N	I	L	20
15	199	v	Y	G	L	I	v	1	I	S	Α	Ι	G	L	D	s	20
16	224	L	K	Т	v	L	G	L	T	R	Е	Α	Q	Α	K	Α	20
17	256	F	I	G	L	S	M	V	Н	R	F	s	K	R	R	D	20
18	290	P	I	V	Y	G	v	K	T	K	E	I	R	Q	R	I	20
19	301	R	Q	R	I	L	R	L	F	H	V	Α	Т	H	A	S	. 20
20	65	L	С	M	L	S	G	I	D	I	L	I	s	Т	S	s	19
21	100	L	L	Q	I	F	A	I	Н	S	L	S	G	M	Ε	S	19
22	196	v	N	V	v	Y	G	L	I	V	I	I	s	Α	Ι	G	19
23	218	F	s	Y	L	L	I	L	K	T	V	L	G	L	T	R	19
24	247	C	Α	V	F	I	F	Y	V	P	F	Ι	G	L	S	M	19
25	274	P	V	Ι	L	Α	N	Ι	Y	L	L	V	P	P	V	L	19
26	45	L	Т	Ι	I	Y	I	V	R	T	E	Н	S	L	Н	Ē	18
27	68	L	S	G	I	D	I	L	Ι	S	Т	S	S	M	P	K	18
28	80	M	P	K	M	L	A	Ι	F	W	F	N	S	T	Т	Ι	18
29	97	D	Α	С	L	L	Q	Ι	F	Α	Ι	Н	S	L	S	G	18
30	103	I	F	A	I	H	S	L		G	M	Ε	S	Т	V	L	18
31	208	A	I	G	L	D	S	L	Г	I	S	F	S	Y	Г	L	18
32	249	V	F	I	F	Y	V	P	F	I	G	L	S	M	V	H	18
33	61	M	Y	I	F	L	C	M	L	S -	G	Ι	D	Ι	L	I	17
34	215	L	I	S	F	S	Y	L	L	I	L	K	Т	V	L	G	17
35	259	L	S	M	v	H	R	F	S	K	R	R	D	S	P	L	17
36	278	A -	N	I	Y	L		V	P	P	V		N	P	I	V	17
37	288		N		I		Y							I		Q	17
38	11	A		Y	F	I	L	I	G	Г	P	G	L	E	E	A	16
39	24	E		Q	F	W	L	A.	F	P	L	C	S	L	Y	L	16
40	42	L	G		L	T	I	Ι	Y		V	R	T	E	Н	S	16
41	253		V		F	I	G	L	S		V		R	F	S	K	16
42	47	T	T.	Y	T	٧	R	1	Ε	н	S	Ц	Н		או	M	15

HLA-DRB1*1101 15-mers
(SEQ ID NOS 2806-2866, respectively
in order of appearance)

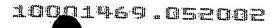
Pos	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	score
99	c			Q	I	F	A	I						M	E	15
116	v	L	L	A	М	Α	F	D	R	Y	٧	Α	I	C	Н	15
143	v	Т	K	I	G	v	Α	Α	v	V	R	G	Α	A	L	15
179	s	Y	С	L	Н	Q	D	V	M	K	L	A	С	D	D	15
227	v	L	G	L	T	R	E	Α	Q	Α	K	A	F	G	Т	15
260	s	M	V	H	R	F	S	K	R	R	D	S	P	L	P	15
261.	M	V	Н	R	F	S	K	R	R	D	s	P	L	P	V	15
277	L	Α	N	I	Y	L	L	V	P	P	V	L	N	P	Ι	15
285	P	P	V	L	N	P	I	V	Y	G	V	K	T	K	E	15
114	S	\mathbf{T}	À	L	Ŀ	A	M	A	F	D	R	Y	٧	A	I	14
125	Y	V	Α	I	С	Н	P	L	R	Н	Α	Т	V	L	Т	14
126	v	А	I	C	Н	P	L	R	H	Α	T	V	L	T	L	14
140	L	P	R	V	Т	K	I	G	v	А	A	V	V	R	G	14
170	F	С	R	S	N	I	L	S	H	S	Y	С	\mathbf{L}	Н	Q	14
180	Y	С	L	Н	Q	D	٧	М	ĸ	L	A	С	D	D	I	14
193	D	I	R	V	N	v	V	Y	G	L	Ι	V	I	I	S	14
229	G	L	\mathbf{T}	R	E	A	Q	Α	ĸ	A	F	G	T	С	V	14
270	D	S	P	L	P	V	Ï	L	A	N	I	Y	L	L	V	14
298	K	E	I	R	Q	R	I	L	R	L	F	H	V	A	T	14
	99 116 143 179 227 260 261 277 285 114 125 126 140 170 180 193 229 270	99 C 116 V 143 V 179 S 227 V 260 S 261 M 277 L 285 P 114 S 125 Y 126 V 140 L 170 F 180 Y 193 D 229 G 270 D	99 C L 116 V L 143 V T 179 S Y 227 V L 260 S M 261 M V 277 L A 285 P P 1.14 S T 125 Y V 126 V A 140 L P 170 F C 180 Y C 193 D I 229 G L 270 D S	1 2 3 99 C L L 116 V L L 143 V T K 179 S Y C 227 V L G 260 S M V 261 M V H 277 L A N 285 P P V 114 S T V 125 Y V A 126 V A I 140 L P R 170 F C R 180 Y C L 193 D I R 229 G L T 270 D S P	1 2 3 4 99 C L L Q 116 V L L A 143 V T K I 179 S Y C L 227 V L G L 260 S M V H 261 M V H R 277 L A N I 285 P P V L 114 S T V L 125 Y V A I 126 V A I C 140 L P R V 170 F C R S 180 Y C L H 193 D I R V 229 G L T R 270 D S P L	1 2 3 4 5 99 C L L Q I 116 V L L A M 143 V T K I G 179 S Y C L H 227 V L G L T 260 S M V H R 261 M V H R F 277 L A N I Y 285 P P V L N 114 S T V L L 125 Y V A I C 126 V A I C H 140 L P R V T 170 F C R S N 180 Y C L H Q 193 D I R V N 229 G L T R E 270 D S P L P	1 2 3 4 5 6 99 C L L Q I F 116 V L L A M A 143 V T K I G V 179 S Y C L H Q 227 V L G L T R 260 S M V H R F 261 M V H R F S 277 L A N I Y L 285 P P V L N P 114 S T V L L A 125 Y V A I C H 126 V A I C H P 140 L P R V T K 170 F C R S N I 180 Y C L H Q D 193 D I R V N V 229 G L T R E A 270 D S P L P V	1 2 3 4 5 6 7 99 C L L Q I F A 116 V L L A M A F 143 V T K I G V A 179 S Y C L H Q D 227 V L G L T R E 260 S M V H R F S K 277 L A N I Y L L 285 P P V L N P I 114 S T V L L A M 125 Y V A I C H P 126 V A I C H P L 140 L P R V T K I 170 F C R S N I L 180 Y C L H Q D V 193 D I R V N V V 229 G L T R E A Q 270 D S P L P V I	1 2 3 4 5 6 7 8 99 C L L Q I F A I 116 V L L A M A F D 143 V T K I G V A A 179 S Y C L H Q D V 227 V L G L T R E A 260 S M V H R F S K 261 M V H R F S K R 277 L A N I Y L L V 285 P P V L N P I V 114 S T V L L A M A 125 Y V A I C H P L 126 V A I C H P L R 140 L P R V T K I G 170 F C R S N I L S 180 Y C L H Q D V M 193 D I R V N V V Y 229 G L T R E A Q A 270 D S P L P V I L	1 2 3 4 5 6 7 8 9 99 C L L Q I F A I H 116 V L L A M A F D R 143 V T K I G V A A V 179 S Y C L H Q D V M 227 V L G L T R E A Q 260 S M V H R F S K R 261 M V H R F S K R 277 L A N I Y L L V P 285 P P V L N P I V Y 114 S T V L L A M A F 125 Y V A I C H P L R 126 V A I C H P L R 140 L P R V T K I G V 170 F C R S N I L S H 180 Y C L H Q D V M K 193 D I R V N V V Y G 229 G L T R E A Q A K 270 D S P L P V I L A	1 2 3 4 5 6 7 8 9 0 99 C L L Q I F A I H S 116 V L L A M A F D R Y 143 V T K I G V A A V V 179 S Y C L H Q D V M K 227 V L G L T R E A Q A 260 S M V H R F S K R R 261 M V H R F S K R R D 277 L A N I Y L L V P P 285 P P V L N P I V Y G 114 S T V L L A M A F D 125 Y V A I C H P L R H 126 V A I C H P L R H 140 L P R V T K I G V A 170 F C R S N I L S H S 180 Y C L H Q D V M K L 193 D I R V N V V Y G L 229 G L T R E A Q A K A 270 D S P L P V I L A N	1 2 3 4 5 6 7 8 9 0 1 99 C L L Q I F A I H S L 116 V L L A M A F D R Y V 143 V T K I G V A A V V R 179 S Y C L H Q D V M K L 227 V L G L T R E A Q A K 260 S M V H R F S K R R D 261 M V H R F S K R R D S 277 L A N I Y L L V P P V 285 P P V L N P I V Y G V 114 S T V L L A M A F D R 125 Y V A I C H P L R H A 126 V A I C H P L R H A 126 V A I C H P L R H A 127 F C R S N I L S H S Y 180 Y C L H Q D V M K L A 193 D I R V N V V Y G L I 229 G L T R E A Q A K A F 270 D S P L P V I L A N I	99	99	99	1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 9 9 0 1 2 1 2 3 4 5 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Please replace Table XXIX, beginning at page 213, line 1, with the following rewritten Table XXIX:

-- Table XXIX. Nucleotide sequence in the 5' region close to 101P3A11 gene (SEQ ID NO: 2867).

<i>,</i> •							
	1 TGCGCTCCA	C CAAGCCTGG	C TAACTTTTG	C ATTTTTAAT	A GAGGCAGGG	T TTCACCATGT	
61	TGGCCTGGCT	GGTCTCGAAC	CCCTGACCTT	GCGATCTGCC	CACCTCGGCC	TCCCAAAGTG	
121	CTGGGATTAC	AGGCGTGAGC	CACTGTACCT	GGCGGGGCTT	ATTGTTTTTT	AAAAAGATTT	
181	CCAAAACCTT	GCCCTGGCAA	TTCTGATTTT	CTGGGCCTGG	AGCAGGACCT	GGAGGGATGG	
241	TGTTGTCAAT	TACTTTAGAT	${\tt GTTTCTATCA}$	GGAAAGTTTG	AGAAATGGTA	TTCAGGCCTA	
301	AACACAAACC	TCTCTTGAAA	TCTCATCCCA	GACTGAGCCC	CTGCTCCCTA	TCTTAAATTA	
361	GATTATAGTA	GGTCTTAAAG	TCAGCTGTAG	ACTGAGCCTC	TAAATCTGAA	CCCAGACCCA	
421	CCCTAACCCC	AGGATACATC	AGAAGAGCTG	GTCAATGTGG	ACCATTCTGA	GCAATCCTGC	
481	AAGTCTACTC	TGATGGGAAA	AGGCTAAGAG	CAGTGCCCTG	GGÇAGCAACA	TCAGCTCTGA	
541	AGATGCAGGA	CTGTGTTACA	TGTTTTATGA	GTGGGTCTTC	ACACACTGAG	ATTCATGGGA	
601	CAGTAATAGA	ATCTGCTTGT	GCAGCACTGG	GGCCTTGGAG	GGTCAGGGTA	AGGCTCAAGA	
661	TGTCCAGGAA	GTTGTATATA	AGGAGAATCA	GAGCAGAGAG	AGACTAGGGT	TCAGAATTAC	
721	CAGGATGACT	TAGTCCTGTT	TGTTACTGTC	ACCACTCCAA	TGCCTTTTCC	TCATTAGTCC	
781	TTTCTCTCCT	CTGAGCCACA	ACTAAATGAT	GTTTCTACTT	TTCCCTTTCT	ACTTTCCTAG	
841	ACCCTGGATT	TTGTATGCAG	AAGCCCCAGC	TCTTGGTCCC	TATCATAGCC	ACTTCAAATG	
901	GAAATCTGGT	CCACGCAGCA	TACTTCCTTT	TGGTGGGTAT	CCCTGGCCTG	GGGCCTACCA	
961	TACACTTTTG	GCTGGCTTTC	CCACTGTGTT	TTATGTATGC	CTTGGCCACC	CTGGGTAACC	
1021	TGACCATTGT	CCTCATCATT	CGTGTGGAGA	GGCGACTGCA	TGAGCCCATG	TACCTCTTCC	
1081	TGGCCATGCT	TTCCACTATT	GACCTAGTCC	TCTCCTCTAT	CACCATGCCC	AAGATGGCCA	
1141	GTCTTTTCCT	${\tt GATGGGCATC}$	CAGGAGATCG	AGTTCAACAT	TTGCCTGGCC	CAGATGTTCC	
1201	TTATCCATGC	${\tt TCTGTCAGCC}$	${\tt GTGGAGTCAG}$	CTGTCCTGCT	GGCCATGGCT	TTTGACCGCT	

	1261	${\tt TTGTGGCCAT}$	${\tt TTGCCACCCA}$	${\tt TTGCG\underline{CCATG}}$	${\tt CTTCTGTGCT}$	GACAGGGTGT	ACTGTGGCCA
	1321	AGATTGGACT	ATCTGCCCTG	ACCAGGGGGT	TTGTATTCTT	CTTCCCACTG	CCCTTCATCC
	1381	TCAAGTGGTT	GTCCTACTGC	CAAACACATA	CTGTCACACA	CTCCTTCTGT	CTGCACCAAG
	1441	ATATTATGAA	GCTGTCCTGT	ACTGACACCA	${\tt GGGTCAATGT}$	GGTTTATGGA	CTCTTCATCA
	1501	TCCTCTCAGT	CATGGGTGTG	GACTCTCTCT	TCATTGGCTT	CTCATATATC	CTCATCCTGT
	1561	GGGCTGTTTT	GGAGCTGTCC	TCTCGGAGGG	CAGCACTCAA	GGCTTTCAAC	ACCTGCATCT
	1621	CCCACCTCTG	TGCTGTTCTG	GTCTTCTATG	TACCCCTCAT	TGGGCTCTCG	GTGGTGCATA
	1681	GGCTGGGTGG	TCCCACCTCC	CTCCTCCATG	TGGTTATGGC	TAATACCTAC	TTGCTGCTAC
	1741	CACCTGTAGT	CAACCCCCTT	GTCTATGGAG	CCAAGACCAA	AGAGATCTGT	TCAAGGGTCC
	1801	TCTGTATGTT	CTCACAAGGT	GGCAAGTGAG	ACACCTTAGT	GTCTCGCTTC	TACTACTACT
	1861	ACAGAAGATG	GGAATATTAG	GATCCTATTG	AATGCCTTGG	TGATTAAAGT	ATCAAACCTA
	1921	TTGTGCTGTC	TTCTTCCAGC	AATTTAAGTA	GATCATGTAT	TCTGTCTCCA	GGAATGTGTC
	1981	AGTACTGAAC	TTATGACCCT	GTCTGGACAT	CCTGGAGAAT	GACTGCACTA	GTCCCTCTGC
	2041	TATGGTGGTC	TTGCCTTCTC	CTTCTCTCTC	AGCTAGAAAA	TACATCTAGT	TTTGACATGG
	2101	GGAGGCTGTA	AAGATCACAC	CTCATGGTTC	ATTCCAGTTT	TGAAGTATGA	TTTTAATGTT
	2161	CTTGCCCCCA	TGTGCCCATG	TTGGTGAATT	TGCATGGACT	ATAAACGTTA	TTGCAAATAC
	2221	CCTAAAGTGG	TTACCCAGCC	ATAATCAGGG	GTTAATGAAG	GTATTTGGGG	AATAGTAACT
	2281	GGAGAGACAG	CAACAAGACA	AGAGGCAGCT	CACATGCAAT	GTTGAAGTTT	CTGTATGCAA
	2341	GAGGGTGTGT	TGGCAGATTT	GTGAAATCTG	CCCATTTGCA	TCTGTATGGC	TCTATATGAC
	2401	TATTTGTCCA	TAAGGGTGCC	ATGTATTCTG	GTTGTGGGTG	TGAATGTGTG	GGTGTGTTTA
	2461	TGTGGACACT	TGCTTTTCAG	TGTGCGTATA	TGTGAGAGAG	AGGGTGCACA	CATGGAATAC
	2521	GTACTGGTTG	TGTCCTGGTG	AGTGTGGTAG	CTATGTCCTG	GCACATGTAT	GTTTCATGAG
	2581	ACGTGTCTCT	GATTGCGCAT	TTGTATTTCT	GTGGTATCTG	TTAGTTGGTA	TATGATATGT
	2641	GTCTACGTGA	GAATGCTGGT	GTCTGTATCT	GCATGGTGGG	CAGTACCTTT	ATGTGTATCT
	2701	GGTAAGAATG	CTGCCTCTAC	CTTTTCTTCC	TATTTGTACT	ATGTGAATGT	GGTGCATGAA
	2761	TGTGTGGAAT	GTGTGGAATG	TGTAGTATTG	GGATGCCTGT	ATCTTTCAGC	GTGTTTGGGT
	2821	GTATGTCCAC	TGTGCATAAT	ATTTGAGATG	TAAAACCATT	TTGTGCGGTA	TATGTGTTAT
	2881	TAGTTGTAAG	TCGGTGAAAT	GTACATCTGA	ATTCTGTGTG	CATATTGTTG	GTACTGATGC
	2941	TATTTTCGTG	CATATGTCTA	GTGTATATGT	TTTAAGGCAA	ACTTTCTTTG	TGTGTTGGGT
	3001	GTGTATGTGA	CACGAATGGG	GACAGCATCT	GTATTTCTGA	GCATGGATTG	ATGTGTGGTG
	3061	TCTGTATGTA	TCTTGGAATG	GAGGAGGAG	ATTGAAGAAG	TCTGGCTGTG	AGCAGCAGAA
	3121	ATAATTTCCA	AAGTTGAGTG	ACATGACTCT	AAGATGCCCA	GTTTCTCGGC	CTGGGGTCAG
	3181	CCTGGGTGAT	AGCTCAGTCT	GTCAGAATGA	AAGGAAACAC	GGTGCTTCCT	TGCTCCACCT
	3241	TTTCACAGGC	CAGACCACAC	CTTCTTCATC	CTGAACACAA	GGATTTCAAG	GGCTTTTGTT
	3301	ACCTCTTCCT	ACGTTTCCTG	CCTCTGCTAT	CCGAGGCACT	GGCCTCCCTA	AACCCTGCCC
	3361	TCCTGCCTCA	ATAGCAAGTC	ATGGTATCCT	CACCTCTCCC	TTCCCTTTTT	GGCTTATCT G
	3421	CCAAACATGT	ATAAAAGTCC	TTGGTTCCCC	ATCTCTACTA	AAAATACAA C	AATTAGCCGG
	3481	GTGTGATGGC	GCGTGCCTGT	AGTCCCAGCT	AGTTGGGAGG	CTGAGGCAGG	AGAAACGCTT
	3541	GAGCCCGCAA	GGTGGAGGTT	GCAGTGAGCC	GAGATCATGC	CACTGCACTC	CAGCCTGGTG
	3601	ACAGAGCAAG	ACTCTGTGTC	AAAAAAAAA	AAAAAAAAA	AGCCTTGGTT	GTAGGGAGTT
:	3661	TCTCCTAATC	CCTCTGGGAA	AGCAAGGGTG	GAGGGGAAGC	CAGTCAATCT	CCCTTCTGTT
	3721	GCCGCATGGA	AACTCCCTTA	AGGCAGGAAG	CTGAAAAAAC	TGTAGCATTC	ACCTCATTAT
	3781	${\tt TCACCTTGTC}$	TCATGTCTCA	$\mathtt{CTGTCCTTCC}$	ACATGTCTCA	TTGTTACTCC	ATATTGGATG
	3841	GAAGTAGAAG	TCCCTTTGGT	${\bf ATTTTTTAAA}$	GTCTTTGCCA	TGTCTAAGTT	AATGAGGTTA
	3901	ATGGAGGCAG	CAGAGATGGC	TCCAGGGTTC	TGATAGCAAG	TGTCAGGCTG	CGTGCTCTGT
						CTGAGTTAGA	
						TGTGTTCTGA	
						AACTAAAAAC	
	4141	$\underline{\textbf{TA}} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	TGTAGTTTTT	ACTTATTTCA	AAATACGAGG	TATTTAGTTT	TACATTCAAA
•	1201	TTGTTCTCTA	ACTCTCTAAA	ATGTTCTCTG	ACTATTTTTG	CCCTTAAGGG	AGAAACCAGA
						GTTAAAGAAA	
	4321	${\tt TGTCCTCAGC}$	CAGAAGTTCA	${\tt GTAATCCAAG}$	GCCAGAGAGT	GGACGGCAGA	GGCACTGTCC
						GAGCCTGGGA	
	4441	GATGTAGCCC	TAGGGCTTTG	GGAAAAGGAG	GATGGACCCA	GTGAATTCCA	CGCTTAGCAA



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4501 GGACCTAAAC AGTGTCCCC AAATGAGAGA AGGGAGGACA GAAAGAACAC TTCAGGATGG
4561 AAATGGGCTG ACACTTAACC GTGGAGTGTC TCTGCAAACT TCCTTTGCCA TTCTCCTGTT
4621 TGAGTTTGAT AAACCTGAGA AGAGACTTGG ATAAAGACCG TCACGAAGAC TACACTAATG
4681 AGTTTCTTCT AGCTTTTTC TACTCACTTT CCCTATCTAT CCTTCACATT GGGAGTTGGC
4741 ATGAGGATCC CAGCAGCCCA TCAGGGGAGG ACTCTAGAGA TCCCTTTCCC CATTGCCTCT
4801 CCTCCCCATA CCCCCAGGCA TATCCTCCCA GGGCACGGAA GCTGAGAAGC AGTCCAGAAC
4861 CACAGTGGGC TAGTGAGGGG TACCTGCTGA TGTACCCTTT GGACAGCATT CTGCCCCACC
4921 CTGCAGGAAG AAGCAGAAGG AGGGAGAGGG TGAGGCAGGAA AATAAATAAC CCTGACCAGG
4981 GAGGTCCAAG GGAGTAGGCG GAGACAGAAG GGCTGAGAACC CCTGACCAGG
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Note: The three high score predictions of promoters were bold and underlined. The lower case sequence indicates the beginning part of the transcript of 101P3A11 gene.--

Please replace Table XXX, beginning at page 214, line 35, with the following rewritten Table XXX:

-- Table XXX: Promoters and their positions predicted by Neural Network Promoter Prediction computer program. (various portions of SEQ ID NO: 2867, respectively, in order of appearance)

Start	End	Score	Promoter Sequence
25	75	0.91	TTTTGCATTTTTAATAGAGGCAGGGTTTCACCATGTTGGCCTGGCTGG
665	715	0.95	CAGGAAGTTGTATATAAGGAGAATCAGAGCAGAGAGAGACTAGGGTTCAG
2477	2527	0.91	TCAGTGTGCGTATATGTGAGAGAGAGGGTGCACACATGGAATACGTACTG
3139	3189	0.82	TGACATGACTCTAAGATGCCCAGTTTCTCGGCCTGGGGTCAGCCTGGGTG
3420	3470	0.96	GCCAAACATGTATAAAAGTCCTTGGTTCCCCATCTCTACTAAAAATACAA
4092	4142	0.99	AACTGATCAGTAAAAAATAAGGGGAGACCAACTAAAAACCATGTTGTTCT
4953	5003	0.97	AGGCAGAGAATAAATAACCCTGACCAGGGAGGTCCAAGGGAGTAGGCGGA

Please replace Table XXXI, beginning at page 215, line 1, with the following rewritten Table XXXI:

-- Table XXXI: Alignment of five homologous 5' upstream genomic regulatory regions of the human 101P3A11 and PSA genes.

Query: 5' upstream regulatory region of the PSA gene Subject: Putative 5' upstream regulatory region of the 101P3A11 gene.

Nucleic acid sequences predicted to be binding sites for the indicated transcription factors are **bolded**, <u>underlined</u>, or *italicized*.

Query: 3984 agctaatttttgtatttttagtagagatgggg 4015

 Query: 4670 cctgtaatcccagctactgaggaggctgaggcaggagaatcacttgaacccagaaggcag 47 (SEQ ID NO: 2870)
Sbjct: 3496 cctgtagtcccagctagttgggaggctgaggcaggagaaacgcttgagcccgcaaggtgg 35 (SEQ ID NO: 2871)
SP1 NF-E NF-1 NF-1 GR GR
Query: 4730 aggttgcaatgagccgagattgcgccactgcactccagcctgggtgacagagtgagactc 47
Ouery: 4790 tgtctcaaaaaaaaaaa 4807
Sbjct: 3615 tgtgtcaaaaaaaaaa 3632
3. GR NF-1 SP1
Query: 142 tgagactgagtctcgctctgtgcccaggctggagtgcagtggtgcaaccttggctcactg 20 (SEQ ID NO: 2872)
Sbjct: 3621 tgacacagagtcttgctctgtcaccaggctggagtgcagtggcatgatctcggctcactg 35 (SEQ ID NO: 2873)
Query: 202 caagctccgcctcctgggttcacgccattctcctgcctcagcctcctgagtagctgggac 26
Sbjct: 3561 caacetecacettgegggeteaagegttteteetgeeteageeteecaactagetgggae 35
NF-1 Query: 262 tacaggcacccgccaccacgcctggctaannnnnngtatttttagtagagatgggg 318
Sbjct: 3501 tacaggcacgcgccatcacacccggctaattgttgtatttttagtagagatgggg 3447
4.
Query: 300 atttttagtagagatggggtttcactgtgttagccaggatggtctcagtctcctgacctc 359 (SEQ ID NO: 2874)
<u>SP1</u> LF-A1 CP2
Query: 360 gtgatctgcccaccttggcctcccaaagtgctgggattacaggcgtgagccactgcgcct 419
NF-1 Query: 420 ggc 422
Sbjct: 151 ggc 153

5.